

THE MONTHLY JOURNAL OF MEDICINE.

VOL. I.

FEBRUARY, 1823.

No. II.

Remarks on Epilepsy, with observations on those lesions of the cranium, which may induce that disease. By BARON LARREY.

(From the *Revue Medicale* for July 1822.)

The most difficult object in the study of epilepsy, is to be able to discover the nature of its productive cause, and to make known the organ or parts, which it particularly affects. However, by studying with care the progress of the symptoms which characterize the attacks of this disease, it is easy to distinguish the principal species : that which authors term *idiopathic* epilepsy, having its seat in the head or dorsal spine, being easily distinguished from that which is termed *sympathetic*, and is seated in any other part of the body—by the examination of the causes which produce the disease—by the nature and progress of the symptoms which it presents, and by the pathological state of the parts affected.

In the first case, epilepsy is the effect of original malformation of the head or spine, or of disease developed after birth, in the bones of the cranium, its meninges, the brain itself, or the spinal marrow. Each of these lesions is characterized by particular symptoms.

The first, which commonly arises from enlargement of the bones of the cranium, is manifest by an unnatural growth of some points of its surface, most frequently of its vertex. In this case, there are habitual dulness, and irresistible inclination to sleep ; the features are altered, and the subject sinks into a state of stupidity. The paroxysms are gradual, are an-

nounced by disorder of the mental faculties, and by the loss of the senses ; they are not violent, but of long duration, and at the period of their cessation, the subject recollects nothing of what has passed.

It is evident, that in this variety of epilepsy, the periphery of the brain suffers in consequence of pressure on its surface, by the arch of the cranium, whose cavity is diminished in proportion to the increased thickness of its parietes. The periodical return of the paroxysms depends on the reaction of the organs upon these obstacles ; sometimes also, there are concomitant causes which induce the attack.

If the disease is seated in the meninges, the discrimination is more difficult, unless there should be fungus of the dura mater, perforation of the bones of the cranium, and a projection of fungous tumours, as in one of the cases recorded in this paper. The symptoms of this particular affection, resemble those of epilepsy arising from enlargement of the bones of the cranium ; however, one may study them in the subject of the observation just alluded to, and in the one whose disease will be described at the end of this paper. When the fungus, after having perforated the bones of the cranium, forms perceptible tumours beneath the teguments of the head, we ought to leave nature to act, and beware of performing an operation.

The vertebral column may also suffer unnatural inflections or curvatures of greater or less extent. One of the last vertebrae of the back, or one of the loins may have been displaced and produce on the nerves of the spinal marrow an alteration, followed by epilepsy. This alteration is easily detected. Before the attack, the patient experiences a kind of shivering, accompanied by acute pain in the back, and falls immediately after, upon his knees. The prognosis in this particular affection is extremely difficult, because art presents but few remedial resources. However, if there remains no mechanical cause to combat, such as curvature or unnatural projection of the vertebrae, we may expect advantageous results from the application of moxa, which has the property of restoring the action of feeble organs, and may also favour the gradual approximation of the displaced bones. As this is accomplished, the epileptic paroxysms become less violent, and finally the disease is entirely removed. In all these cases, topical revulsives, such as the actual cautery in its various forms, applied with care and requisite precautions, change the morbid action, a resolution of the osseous enlargements is effected, the brain and spinal marrow cease to be compressed, and equilibrium is restored to the

functions of the encephalon. But it is important to remove the particular morbid causes, before making the application.*

Epilepsy arising from an alteration of one or several points of the brain, presents remarkable anomalies, according to its seat: thus, for example, when it is seated on some points of the periphery of that organ, the individual begins to loose his senses, and is afterwards seized with convulsions: the attacks are acute and rapid. If on the contrary the lesion exists in the ventricles or base of the brain, the fall of the individual is the first symptom which is manifested. The contractions and contortions of the limbs occur immediately, and become more or less violent. In these epileptics the features are equally altered, and they perform without cessation automatic movements, which are independent of the will. We shall conclude these remarks with some reflections respecting the difference there exists between true or natural epilepsy, and that which is feigned.

The symptoms may be distinguished according as they are permanent, or as they accompany the attack. The first are equivocal if the disease is recent, but if it is chronic or hereditary, there is established a series of symptoms, which the practitioner seizes at once, and analyses promptly. These we will notice in a few words, with some observations of our own. A celebrated professor of the university of Montpelier,* has pointed out as a constant pathognomonic symptom, the prolongation of the facial triangle. Without pretending to combat such authority, very respectable however in my eyes, I cannot forbear to observe, that before such a change can take place in the structure of the face, it is necessary to suppose that the disease has existed from the infancy of the subject, and was produced by malformation of the superior maxillary bones; but most frequently the seat of epilepsy is the cranium, its meninges, or the brain itself. Besides it is useless to search in the geometric varieties of the face for the symptoms of a disease, when we have other indications which are furnished by anatomy and physiology. In the form of epilepsy of which we speak, having its seat in the head, the brain is directly or indirectly altered, and hence all the phenomena which characterize its attack, such as dull pain of the head, vertigo, the fall of the individual if he is standing; the alteration of the moral faculties, the voice, the speech, and the sight; the distortion of the eyes, and the involuntary convulsive contraction of the muscles.

All these symptoms may be simulated, especially when a per-

* See observation 2.

† M. Dumas.

son has contracted the habit ; but he cannot imitate the emission of thick saliva, which is naturally secreted in great quantities during the paroxysm, nor the dilatation of the pupils, which is independent of the will. In true epilepsy the pulse is regular, but of a nervous character ; in the other, on the contrary, it is agitated, as well as the respiration.

Since it is upon the nerves of animal life that the disease manifests its principal effects, sometimes in deranging their functions, and sometimes in their paralysis, it induces, besides the weakness of the intellectual faculties, involuntary falling of the superior eyelids, the inclination of the head on the shoulders from the small contractile force of the extensor muscles, that which gives the face hebetate character, unsafe and faltering step. These symptoms are always observable in the subjects of idiopathic epilepsy, especially if the disease is chronic or hereditary, and one cannot mistake them, however limited his experience.

Now, is it possible to attack with any success an organic lesion of the cranium, or of the membranes of the brain ? I think so ; and the facts which I am about to expose, confirm me in this opinion. For this purpose, those substances which have the property of dissolving the osseous or lymphatic tumours, such as enlargement of the bones, exostosis, fungus or induration of the membranes and tubercles, which are sometimes formed in the encephalon, by destroying as far as practicable the morbid causes, suspend the effects and remove the disease.

The extraordinary success which I have met with, in the treatment of inveterate exostoses, by the application of topical revulsives to the contiguous surface, such as blisters, moxa, issues of caustic potash, or the actual cautery, have persuaded me, that the same measures might be employed with equal success, in exostosis of the cranium or induration of the dura mater, which are frequent causes of epilepsy. But, it is not sufficient merely that we try these means, we must persevere in their use a long time, with such modifications as are indicated by circumstances : we ought especially to employ them, until the virus is destroyed by their repeated application. Before speaking of the second species of epilepsy, we proceed to report a series of observations, which make known in detail the phenomena of idiopathic epilepsy, and establish, I think, the truth of the opinions we have expressed respecting this disease.

Observation 1.—L . . . 25 years of age, entered the hospital in 1806, having two tumours on his head, with fluctuation and slight redness of the skin. The patient experienced constant pain in the points affected, was soporose, and suffered from fre-

quent attacks of epilepsy. The tumours having been opened, we discovered in the corresponding parts of the cranium, a deep caries, which had perforated the internal table of the bone, and enabled us to perceive slight pulsations of the dura mater.

The discharge of the matter which was contained in these tumours and had compressed the dura mater, was followed by relief; the attacks being less frequent, and of shorter duration, but they afterwards became aggravated, as the caries increased. Epilepsy could be produced, at will, by gradually compressing the fungus of the dura mater, which was seen through the carious opening. About thirty days after he was received into the hospital, the patient died. Upon dissection, we discovered two fungous tumours of the dura mater, which appeared to have been produced by the same cause with those which had led to the caries. The two fungous tumours pressing on the corresponding portions of the brain had excited the epileptic paroxysms. The analogy which I found to exist between these tumours, and those which are also accompanied by caries of the bones of the cranium, originating from syphilis, and which I have successfully treated in numerous instances, by the appropriate remedies of the latter disease, led me to suspect, that the unfortunate issue of this case might have been prevented, if the same remedies had been more promptly employed.

Observation 2.—T . . . at the age of 26 years, entered the hospital for the treatment of two large tumours, of a scrophulous aspect, situated on the neck; accompanied by pain in the head, and paroxysms of Epilepsy. To the latter for many years the patient had been subject. In answer to our inquiries, it appeared that in 1802, he had syphilis, which, as he supposed, had been methodically treated. A gunshot wound received six years after, while in the army of Spain, the ball of which had struck the anterior part of the thigh, had terminated in fever and hospital gangrene. The wound being healed, he was seized with severe pain in the head, which continued four months, and was at last relieved by a spontaneous purulent discharge from the ear. Sometime afterwards, the discharge having been suppressed, there occurred inconvenient humming in the same ear, and deafness, attended with vertigo, and some slight attacks of epilepsy. The application of leeches to the temple, and of blisters behind the ear, with internal remedies, had relieved the paroxysms and favoured the developement of an abscess or buboe in the groin, the suppuration of which had been unfortunately prevented. From that moment the epileptic paroxysms recurred and became extremely violent; and the patient was placed under my immediate care.

Suspecting a syphilitic cause, I prescribed remedies for that disease, combined with those for scrophula. The fluctuation being distinct in the two tumours, I made application of the caustic potash. After the fall of the eschars, which took place on the fifth day, the patient was seized suddenly in the night with a severe attack of epilepsy, followed by complete hemiplegia of the left side, with the almost total loss of his intellectual faculties, and of the use of his senses. Notwithstanding this, he was able to point out a painful spot in the hypochondrium of the paralysed side. A large blister applied to this spot produced immediate relief, and the paroxysms of epilepsy were suspended. In the meantime the hemiplegia continued the same, the two paralysed limbs being deprived of the power of motion and sensation. A few days after, the pain of the head recurred, as well as the epileptic paroxysms, and the patient being in great danger, I directed the application of a blister to his head. After shaving that part, there was perceived on the right side a projection, formed by the scaly portion of the temporal and the inferior portion of the parietal bones. Another prominence, on the summit of the cranium, gave to the osseous case a conical form. The first blister produced a perceptible amelioration. I prescribed the muriatic acid; with camphor and opium at night, and a mixture containing corrosive sublimate in the morning. The dose of camphor was gradually increased to a scruple a day. By these means the pains of the head were mitigated, the paralysis sensibly diminished, and the epileptic paroxysms suspended. New tumours were formed on the neck, to which I applied the caustic potash, a second blister was applied to the head, and a third to the temporal bone. The same remedies and the same regimen were continued.

Sensation and motion were by degrees restored to the paralysed limbs, and the patient gradually recovered the use of his senses, and of his intellectual faculties; but he experienced periodical chills of the left side, which were succeeded by a tremulous motion of the extremities. This phenomenon was particularly manifest in stormy weather. The suppuration of the wounds of the neck had been checked, by causes to me unknown, and he experienced another attack of epilepsy. I endeavoured to restore the suppuration of the scrophulous ulcers, applied another blister to the tumour of the temple, and continued the camphor and muriatic acid in increased doses. All these means produced beneficial effects, and the patient was evidently better. After this, there occurred several attacks of epilepsy; severe, but of short duration. Blisters were again applied to the head and to the right arm. There occurred one

day, during my morning's visit, a severe paroxysm of epilepsy, followed by convulsions and extreme prostration of the vital powers. The eighth blister was applied to the temple, the antispasmodic drinks were increased, cinchona in substance was taken in generous wine and ether, and the cautery was applied to the arm instead of a blister. Since this last attack, the patient has suffered nothing more. The paralytic affection is entirely removed, and he has been gradually restored to the integrity of his physical and moral functions. The scrophulous and venereal ulcers are healed, the osseous projections have disappeared, and the head has regained its natural form: finally, I believe this soldier is completely and permanently cured, after four or five months treatment of a disease, generally considered incurable, especially when it has reached that stage and that degree, to which it had arrived in the subject of this observation. All the means employed undoubtedly contributed to his cure; but especially I think the blisters, and the internal use of the muriatic acid. The following observation appears to countenance such an opinion.

Observation 3.—D . . . , aged 41 years, had been subject, for about a year, to frequent attacks of cerebral epilepsy. An injury of the right temporal region, produced by a fall, was succeeded by effusion, inflammation, and a large abscess; for which he was sent to the hospital. Emollients were employed several days, and when the fluctuations of the abscess became distinct, it was freely opened. A large quantity of pus was discharged, and from that moment the patient was relieved. He was directed to use valerian, and muriatic acid, with opium and camphor. The last was gradually increased to the amount of a scruple a day. The wound was healed, the visage of the patient, which had been remarkably altered from his first entrance into the hospital, regained its ordinary characters and form, and the subject was perfectly restored to health; the abscess having produced in this case the same good effects as the blisters in the former.

Observation 4.—P . . . , aged 24 years, entered the hospital on the 28th of October, 1821; for the treatment of epileptic paroxysms, which, for several months, had been of frequent recurrence, judging merely from the external appearance of the head, we at once referred this disease to an enlargement of the bones of the cranium, which opinion was confirmed by the dull pain, of which it was the seat, and by the torture which was produced by slight pressure. The other symptoms of cerebral epilepsy were particularly striking; the feebleness of the moral faculties, languid mien, involuntary falling of the superior eye-

lids, inclination of the head on the shoulders, a state of hebetude and silence ; the countenance also was flushed and severe purulent ophthalmia had occurred some months before.

The disease had continued eight or nine years, with intervals of one year or eighteen months between the attacks. Nothing very appreciable, such as percussion, wounds, a fall or fright, nothing except a sudden suppression of psora could be assigned as its cause. The patient was bled from the jugular vein, dry scarificators were applied to the temples, and along the side of the neck, his head was shaved, and a large blister applied to its summit. After some days, another attack of epilepsy took place, but in this, there was nothing surprizing, since for many months the paroxysms had assumed a periodical character, and the means had not been employed a sufficient time to prevent their recurrence. I prescribed the muriatic acid, the extracts of gentian and fumitory, a small quantity of aloes and calomel, to be taken in the morning, and a pill of camphor and nitre, in doses successively enlarged, every evening, and also a draught composed of valerian and the acetate of ammonia. Blisters and cupping were again directed, and followed by the application of potash to the base of the cranium. Early in November, having remarked two edematous points on the summit of the head, I directed two eschars to be excited by the caustic potash, which applications having proved beneficial, were soon followed by a third. On the 16th of November the patient was again attacked, but the duration and severity of the paroxysm were much less than in the preceding cases. The condition of the patient is, moreover, greatly ameliorated, the ophthalmia is nearly removed, his appearance more calm, and the slight convulsive movements, the tremors which he has every day experienced in the muscles of the extremities, are less frequent and less perceptible ; and the size of the cranium is manifestly reduced. Finally, by persevering with the blisters and moxas, behind the ears or beneath the occipital bones, I hope these means, which, by the revulsion and suppuration to which they determine, remove the morbid irritation, and detach, if we may so speak, the nervous parts to which it is adherent, will conduct to the cure of a most formidable disease.

Symptomatic Epilepsy is produced by the lesion of some parts of the body remote from the encephalon and its dependencies, or by the presence of some foreign substance, accidentally introduced or spontaneously developed in any part of the body, except the brain and its accessories.

In the first class, we find certain lesions of the nerves, or of

fibrous portions of the articulations, the tendons, aponeuroses, &c. ; in the second, the presence of certain irregular calculi in the bladder, of worms in the intestines, and of balls or other projectiles in different parts of the body.

The attacks of these two kinds of epilepsy are always preceded by pain or by shiverings, which arise from the point of lesion, and afterwards extend towards the brain, producing derangement of its functions. In these cases the functions of nutritive life are disturbed, and the circulation and respiration are the seats of sensible aberrations.

When the true cause and seat of the disease are known, it is easy to supply the indications which present themselves.

When, after gunshot or other wounds with deep lesion or loss of substance, there is formed a cicatrix in which the nervous filaments are comprised, as I have seen in numerous instances, it is sufficient to cauterise, with red iron or with moxa, the points of adherence, and to suffer the cicatrization to take place in a gradual manner. Foreign bodies, whatever be their size and nature, should be extracted, and the attacks are suspended, unless the disease has been of long continuance. We might report numerous examples of success. With the topical revulsives, which have greater or less efficacy in every form of epilepsy, we ought to combine the use of internal remedies, according to the morbid causes which produce the disease, or render it complex.

Recently, much has been said in favour of a weak solution of nitrate of silver and other analogous substances ; but experience tells us, they can do nothing towards removing indurations of the cranium or its meninges, the nervous attachments, or other organic alterations ; and they may injure the mucous membranes of the intestinal tube. We might derive more advantages, as a solvent remedy from small doses of muriatic acid, (alcool muriatique) given in some appropriate vehicle, and as an antispasmodic from camphor, gradually increased, either by itself, or combined with sedative substances, such as the nitrate of potash or the extracts of some narcotic plants. Baths of different temperatures may also promote the patient's recovery, and issues applied to such parts of the body as are indicated by the occupation of the patient and the character of his disease, are generally necessary. In illustration of the preceding remarks, we subjoin two observations, one from the works of Theden, the other from our own practice. We find, in Theden, the case of protestant clergyman, who was seized with severe and frequent attacks of epilepsy, in consequence of a ligature of the spermatic cord applied sometime previously, in the opera-

tion of castration. This celebrated surgeon effected a cure, by making a new incision upon the cicatrix, and removing the stricture which had been produced on the spermatic nerve by means of the ligature.

In a soldier of the guards, the attacks of the same disease arose from a wound of the internal cutaneous nerve. From the invasion of the disease, the patient experienced severe pain at the point of the cicatrix, accompanied by an inconvenient shivering, which pursued the course of the nerve towards the head; the convulsions occurred immediately, and all the other symptoms which characterise the epileptic paroxysm. The application of potash to the superior point of the cicatrix, and of several small moxas along the course of the nerve effected a cure.

II.

A Treatise on the Hydrocephalus Acutus, or inflammatory Water in the Head. By LEOPOLD ANTHONY GOLIS, Physician and Dissector to the Institute for the Sick Children of the Poor at Vienna. Translated from the German, by ROBERT GOOCH, M. D. One volume, 8vo. pp. 280. London, 1821.

(From the Medico Chirurgical Review.)

IT is not amongst the least of the blessings of peace, that the scientific and literary, as well as the commercial, stores of Europe are opened, and their treasures diffused over the world at large. In language, however, which is the great medium of communication, there still exists a powerful check on its own operations—a defect which has not ceased to embarrass social intercourse from the “confusion of tongues,” at the building of Babel, down to the present moment. Translation, the great remedy of this evil, is seldom rewarded in proportion to its merits: yet there is not a more praiseworthy undertaking than that of clothing, in vernacular language, the useful productions of a foreign soil—especially of a German soil, fertile as it is, in intellectual vegetation, but difficult of access over the frowning barriers of its rugged literature.

The work before us is characterized by Dr. Gooch, a gentleman whose competency of judgment will not be questioned, as “the best book he ever read on the acute hydrocephalus.” The author, Dr. Golis, has been physician to an extensive institute for sick children, since the year 1793, enjoying great opportunities for observation, and possessing “practical talents of a very high order.” Under these propitious circumstances, the reader will be prepared to expect something beyond the usual run of medical publications: and in this expectation we believe he

will not be disappointed. True it is, as Dr. Gooch has justly observed, the work in question "like all books, has its weak parts ;" but where are we to look for perfection—except in the sublime dicta of the infallible critic, or his imaginary BOARD of censors ? Dr. Golis informs us that he has already opened 180 bodies of those who have died of hydrocephalus, in the presence of several physicians and surgeons, and that these dissections always confirmed the accuracy of his diagnosis. We confess that such an assertion surprised us not a little ; for, according to this statement, the Doctor's diagnostic acumen was as great at the beginning, as it was at the end of his experience ! But let that pass. It is only a way of talking, not very unusual among continental writers of the first respectability, though confined, in this country, to authors who seek fame or fortune through the medium of popular credulity, rather than the esteem of their brethren. Dr. Golis divides hydrocephalus into the *hyper-acute*, acute, and chronic forms ; denominating the first *wasserschlag*, or, in our language, "WATER-STROKE."

"The hydrocephalus *hyper-acutus*, *apoplexia hydrocephalica*, *wasserschlag*, literally water-stroke, is a sudden effusion of fluid within the brain, either occurring idiopathically, or the consequence of the repelled matter of a previous disease (defect of crisis,) or the consequence of obstructed evacuation from an excreting organ, from which death occurs in a few hours. To this belong all those depositions on the brain which arise from small-pox, measles, erysipelas, and other febrile eruptions ; also those convulsions which follow the sudden cessation of chronic, or habitual discharges, the repulsion of chronic eruptions, as *crusta lactea*, *tinea*, discharges from the ears, and the like, or from diarrhoea, dysentery, general perspiration, when the same has been suddenly stopped without previous perceptible turgescence or inflammation. In all these cases of sudden death, there is found, on examining the bodies, an effusion of fluid in the head, for the most part in the ventricles of the brain itself."

It appears, then, that in this form of the disease the stages of turgescence and of inflammation are wanting—a circumstance which distinguishes it from *acute* hydrocephalus. Here, too, the effused fluids are always found turbid, and accompanied with less coagulable lymph than in *hyd. acut.* It is almost needless to remark that the water-stroke runs such a rapid course as to give no time for remedies to produce any effect—it is therefore invariably fatal.

Hydrocephalus Acutus. In this form the effusion is always a consequence or sequela of previous turgescence and inflammation of the membranes or vessels of the brain, consisting in a collection of serum and coagulable lymph—the *former* in the ventricles or substance of the brain ; the *latter*, like a membrane, filling the depths of the convolutions, and lining the walls of the

ventricles as a preternatural coat ; or covering the basis cranii, and hindering the absorption of effused fluid. The inflammatory nature of the complaint is inferred from the symptoms, which are those of encephalitis ; from the influence of medicines ; and from the appearances on dissection. From an attentive observation of nature, Dr. Golis divides this disease into four stages, which he thinks have distinguishable symptoms—viz. that of turgescence, inflammation, effusion, and paralysis.

Turgescence. Of the premonitory symptoms of the *turgescence* stage Dr. Golis draws a minute, and, we believe, faithful picture. We can only notice the prominent traits. Children grow indifferent to things that formerly amused them—become inactive, silent, irritable, disliking light and noise. The eye and countenance lose expression, the body plumpness, the bowels and kidneys activity. On getting out of bed the child complains of giddiness, and moves the hands towards the back of the head, with a whining tone. The pulse, though generally natural, will be found, on attentive observation, “to beat often-times a few beats weaker, and sometimes to intermit altogether”—the skin is without perspiration—the colour of the face changeable—the gait is tottering. Such are the premonitions in healthy children ; and it must be confessed that very many of them precede other diseases than hydrocephalus acutus. Dr. Golis also acknowledges that, in feeble, irritable, scrofulous, and unhealthy children, this premonitory train of symptoms is generally overlooked, even by the most acute physicians.

“ Indifference succeeding to increased sensibility and irritability ; a constipated state after habitual looseness or diarrhoea ; a scanty, unusually yellow urine, with or without sediment ; dryness of the skin, which, previously, on the slightest exercise, even on eating and drinking, and particularly during sleep, perspired profusely ; sleep without medicine often suddenly occurring in restless children ; remarkable gravity and earnestness, which had never been previously noticed ; these taken together, with the symptoms already mentioned, are the signs by which the turgescence of hydrocephalus may with great justice be suspected.”

In children of one, two, three, or four months, the premonitory symptoms are very equivocal, and require a careful consideration of all the symptoms in connexion.

The rarest mode of approach is what our author calls the *tumultuous* ; where, for instance, a lively, healthy child, after a sudden accession of languor, confusion, giddiness, head-ache, gastric irritability, full, hard, slow pulse, ocular sensibility, tinnitus aurium, &c. is suddenly seized with violent fever, and, generally, convulsions. If the practitioner now uses efficient means, effusion is arrested ; but, “ if he does not apply the ne-

cessary remedies with overwhelming power," effusion will take place, in one, two, or three days, "but most commonly in a few hours," and the child will be irrecoverably lost. The duration of the turgescent stage is frequently only a few hours; but often eight, ten, fourteen, or even more days.

Inflammatory Period. In this stage the symptoms of turgescence are merged in those of phrenitis. The little patient complains of severe head-ache, pressing upon the eyes—tension and shooting sensation in the nape of the neck—great restlessness—high sensibility of the eye to light, opening perfectly only in the dusk—heat of the head to the touch, particularly the forehead and nape—but the vessels of the surface are rarely turgid or red. In the tumultuous accession of the inflammatory period, there are convulsive tremblings of the eyes. The carotid pulsations are now evident, and there is a peculiar alteration of the physiognomy, in acute hydrocephalus, which our author considers to be pathognomonic. The nose is dry—the lips a faint dark red, and chapped—the tongue becomes covered with a white or brownish-yellow fur—thirst and appetite generally cease—vomiting usually occurs four or six times in the twenty-four hours—digestion ceases—food taken many days before is often passed undigested, with much slime, and a peculiar foul smell. The breath, at this period, has generally a bad odour—there is tenderness, on strong pressure, in the region of the stomach and liver—the belly, before tumid, now falls in, which our author considers as another pathognomonic sign of acute hydrocephalus, and the surest distinction between that and typhus. The bowels often remain obstinately constipated, in spite of purgatives—the stools are gluey, most commonly brown, sometimes yellowish-green—"only during the use of calomel green in all shades, and not very fetid." The urine is scanty, and often passed with pain—at the beginning turbid and white; but in the following stages of a bright yellow, with white, heavy, slimy deposit. Our author has not seen the lateritious sediment.

The sense of hearing now becomes acute—pains are felt in the belly as well as head—the nights are sleepless or disturbed—there is grinding of the teeth—starting and screaming out of sleep—languor of movements—inability to sit up without support, or without inducing nausea and vomiting. The pulse is now slow, unequal, and intermitting, except when the patient happens to be suddenly excited by a frightful dream or great pain in the head, when "the quickness of the pulse doubles in a moment." The pulse above described Dr. Golis considers pathognomonic of the second stage of hydrocephalus.

The skin, before tense, becomes flaccid—the patient commonly lies on one side, with the hand under the head—often shifts posture, or desires to be placed in the mother's lap, hoping, in vain, for relief by change of situation.

Third Stage, or Period of Affusion. The greater number of the above symptoms, after lasting from a few hours, to two, four, six, or even more days, become exasperated. The patient can no longer sit up—the restless desire for change of posture ceases—he generally lies on his back, kicking up the bed-clothes with one or both feet, and often moving the hand to the head, mouth, and nostrils, the latter of which he picks till the blood comes forth. The tones of the voice are nasal, and the words indistinct—the little patients catch at imaginary objects, or pull themselves by the hair of the head, or pick their lips. All the senses, except that of hearing, become dull or annihilated—the focus of vision becomes dislocated—the pupils are dilated, and insensible even to strong light—vision itself is very indistinct, and often double—there is moaning and sighing—a gloomy earnestness is painted in the flushed countenance, with a threatening expression, broken by intervals of pitiable expression, and exhibiting a curious contrast of fierceness and patience, indicative of the inward distress.

Emaciation advances—the dry flabby skin hangs round the shrivelled limbs—the urine passes unconsciously—a stool seldom follows even a large dose of calomel, without a clyster, and is, for the most part, natural in consistence, soft, pap-like, or figured, brown, black, stinking. Diarrhoea, without purgatives, is of rare occurrence. When it takes place, the stools are green, watery, slimy, and passed with pain. The pulse increases in irregularity and weakness—the respiration is more and more interrupted by sighs—the breath more fetid—in short, the soporose state passes into complete coma, and the last tragic scene approaches, before which the sufferers sometimes recover, for a short period, their consciousness, and are able to take food and drink, thus deceiving the physician and mother with momentary hopes too soon again to vanish. It is almost needless to say, that in this and the succeeding stage, recovery is impossible.

Fourth Stage, or Period of Paralysis. The preceding, or third stage, after lasting ten, fourteen, fifteen, twenty-one, seldom thirty days, terminates in convulsions, followed by palsy, generally of the right side, and often by cramp, which draws the head backwards and downwards, ceasing only with death. A violent fever takes place in this last stage, the ultimate exertion of nature, and a vain one, to remove the cause of death—

the fluid effused on the brain. A hectic redness alternates with a deadly paleness on the disfigured countenance—the sight is gone—the pupil of the convulsed eye is greatly dilated, immoveable, insensible to the strongest light—the albuginea is blood-shot—the eye itself advances more out of its socket. The sense of hearing, hitherto morbidly acute, becomes gradually dull—swallowing is difficult, and, at length, impossible—the urine passes involuntarily—the evacuations by stool are few, being green, sometimes dark brown, slimy, but not fetid—the pulse becomes exceedingly quick, intermitting, irregular, weak, and almost imperceptible, with a corresponding state of the breathing ; and thus, after nameless sufferings, from thirteen to twenty-four days, “ the little sufferers, wasted to a skeleton, expire.”

Diagnosis. We have been very careful to convey to the reader all the leading, and many of the minute features of Dr. Golis's symptomatology, in order that we might avoid, as much as possible, the diagnostic part of the volume, which contains numerous repetitions, and is uselessly minute, and we firmly believe, in many places erroneous. We shall, however, introduce his diagnosis between hydrocephalus acutus and infantile remittent, or worm fever, entire ; because we could not abbreviate it, and we consider it as by far the most important and practically useful portion of the section on diagnosis.

“ 1. The acute hydrocephalus has four stages, distinguished by a change of symptoms, seldom lasts less than thirteen, or more than one-and-twenty days, and if not cured at the beginning, always terminates in death. The worm fever has no distinct stages, no regular change of symptoms, seldom terminates before the one-and-twentieth, often not till the thirtieth or fortieth day, and is often cured at every period of the disease.

“ 2. The acute hydrocephalus attacks strong, healthy children, oftener than weak ones, and boys oftener than girls. The worm-fever attacks phlegmatic, over-fed, large-bellied, bad complexioned children, and according to my experience, girls as often as boys.

“ 3. The acute hydrocephalus has no distinct remissions, and is never epidemic. The worm-fever commonly has remissions, and, though seldom, is sometimes epidemic.

“ 4. In the acute hydrocephalus there is, even in the beginning, a striking change of countenance and actions. In worm-fever the face is pale, and commonly swollen throughout the whole disease, and the conduct betrays sluggishness.

“ 5. In the second stage of the acute hydrocephalus, there is violent pain in the forehead, continuing during sleep, alternating with pains of the belly and stomach ; likewise a sense of tension in the nape of the neck, hands, and feet. In the worm-fever there are

pains in the head and belly, but they are dull, not much complained of, and not distinct in their seat.

“ 6. In the turgescence of the acute hydrocephalus the patients lose their appetite and thirst, go seldom to stool, and pass urine at first scanty and milk-white, which afterwards becomes yellow, and deposits a white, heavy sediment. In worm-fever they eat greedily, drink thirstily, often pass large stools spontaneously, and often a great quantity of colourless urine.

“ 7. In the acute hydrocephalus the patients never sleep quietly, soundly, and refreshingly; they wake out of the sleep, which resembles a confused slumber, very easily, and feel after it weaker than they were before; they moan and whine in it only slightly, and if they sometimes cry out loud, it is with a tone expressing pain, and sighing they turn from side to side. In worm fever the sleep is always sound; we can scarcely wake the little patients; during sleep, they sometimes cry out vehemently, and not unfrequently jump completely out of bed.

“ 8. In the acute hydrocephalus the pulse is not quick till the fourth stage. In the first it is almost natural; in the second and third preternaturally slow. In the worm-fever it is quick throughout the whole of the disease, and seldom or never below the quickness natural to the patient’s age.

“ 9. In the acute hydrocephalus the skin remains dry till the end of the stage of effusion. In worm-fever patients perspire after eating and drinking, and on every exacerbation of fever.

“ 10. In the acute hydrocephalus the patients often fall into deep musing fits, out of which they wake with a sigh. In worm-fever, dullness, tedium, stupidity, are painted on their countenance.

“ 11. In the acute hydrocephalus, in the stage of turgescence, the patient’s step is without steadiness, weak, uplifted as if going up a step. In the worm-fever the walk is slow, but neither weak, nor unsteady, nor uplifted.

“ 12. In the acute hydrocephalus the patients in the inflammatory period are continually changing their posture in bed: in the moment of effusion, they lie for a long time on one side, the lower hand under the head, the upper in automatic motion near the head. In the worm-fever the patients lie still in bed, often cry out with fear, or spring out of bed in their sleep, or sometimes wake out of sleep, in which they lie across the bed, or with the head where the feet should be.

“ 13. In the acute hydrocephalus the sight is over-sensible in the inflammatory period, dim in the stage of effusion, and blind in that of palsy. In the worm-fever the patients never complain of strong light, nor are they perfectly blind at the approach of death.

“ 14. In the acute hydrocephalus the hearing is preternaturally quick till the last stage of the disease. In the worm-fever they are slow of hearing, particularly towards the *end* of the disease.

“ 15. In the acute hydrocephalus the nasal mucus is diminished

in the stage of turgescence, and entirely stopped in the following stages, the patients gradually losing their smell: there is no violent itching of the nose. In the worm-fever the inner surface of the nose is moist, the smell acute, and there is always an intolerable itching of the nose.

“ 16. In the acute hydrocephalus, the vomiting which indicates the second stage occurs in every case. In the worm-fever it is an accidental symptom, which is remarked only when worms have made their way into the stomach.

“ 17. In the acute hydrocephalus, what is rejected from the stomach has a peculiar foul smell. In the worm-fever it has not.

“ 18. In the acute hydrocephalus, the respiration is natural in the second and third stages. In the whole progress of the worm-fever, it is accelerated during the febrile exacerbations.

“ 19. In the acute hydrocephalus, the bowels are constipated, particularly in the three last stages. In the worm-fever, a ready action of the bowels, even diarrhoea, from slight laxatives, are common appearances.

“ 20. In the acute hydrocephalus, the urine is very scanty, and passed in the two last stages unconsciously; in appearance, it is natural in the stage of turgescence: in the inflammatory stage, white and turbid, with or without white sediment; in the two last stages it is of a high yellow, with a white slimy, heavy sediment. In the worm-fever, the urine is sometimes turbid, whey-like, and in small quantity; sometimes as clear as water, and in large quantity; its dirty white sediment is not so heavy as that in hydrocephalus; the first is passed with difficulty, the last without, but commonly not insensibly, in bed.

“ 21. In the acute hydrocephalus, the head feels warmer than the regions of the stomach and liver, and these again warmer than the other parts of the body; in the paralytic stage the unpalsied side is warmer than the palsied. In the worm-fever, most commonly the belly only is hotter than the other parts of the body.

“ 22. In the acute hydrocephalus, the plumpest children waste rapidly; their belly, if it had been large, falls in in a few days, without proportionate evacuations; the sound of flatulence is seldom or never heard. In the worm-fever, there is no wasting of the body; the belly does not shrink; flatus rumbles in the bowels, and passes audibly.

“ 23. In the acute hydrocephalus palsy of one side, or of some part, often with cramp of the spine and general convulsions occur in the fourth stage, terminating in a few days with death. In worm-fever convulsions may occur without palsy of any part, at any period of the disease: if any palsy is remarked, it is transient.

“ 24. In the acute hydrocephalus towards the approach of death, hectic redness of the cheek alternates with deadly paleness, and the tips of the fingers are red: these appearances are never observed on the approach of death in worm-fever.

"25. In the acute hydrocephalus towards the latter end, there is a peculiar eruption about the mouth, and on many parts of the body: this characteristic eruption is entirely absent in worm-fever: frequently there appears instead, a miliary eruption, the common accompaniment of gastric diseases.

"26. In the acute hydrocephalus the countenance expresses inward suffering. In the worm-fever the countenance is without any expression."

The diagnosis between acute hydrocephalus and typhus occupies between fourteen and fifteen pages, and appears to us quite superfluous—in this country, at least, where typhus is viewed in a much more restricted light than on the Continent. The diagnosis between water-stroke and "masked fatal intermittent," we shall also pass over, especially as our author informs us that the appearance of the latter disease under the mask of the former "is in the highest degree rare"—in fact, not having been seen once by Dr. G. in twenty years' experience.

Etiology. Dr. Golis is sufficiently minute in his description of the *predisposing* causes of this disease; but does not offer much which we deem it necessary to notice in this article. Among the *exciting* causes he lays great stress on cold applied to the heads of new-born infants, the consequences of which are, in his experience, "internal inflammations in the head, which occasion the effusion of lymph and of serum in the cavities of the head and brain, terminating in death, which appearances are merely called convulsions." But the most important cause of all, according to Dr. Golis, in large, healthy, and lively children, who have begun to run, romp, and jump about, is mechanical *agitation* of the brain, nearly the major part of the sufferers whom he has had occasion to treat having come by the disease in this way. The next exciting cause, in order of importance, "is the sudden drying-up of discharges from ulcers and moist eruptions on various parts of the surface of the body"—also the disturbance of the febrile exanthemata, as measles, variola, scarlatina, &c. External inflammations of the head and neck, and all kinds of erysipelas which occasion increased turgescence in the head, or propagate phlogosis to the cerebral coverings, are liable to produce hydrocephalus, especially the hyper-acute form, or water-stroke, falsely called convulsions. Indeed, vehement inflammations of remote parts or organs will do the same, whether by impeding the circulation and causing a determination to the brain, or by means of that sympathetic connexion which the sensorium must have with all parts of the body. Violent vomiting, the incautious use of belladonna in hooping-cough, abuse of fermented liquors, insolation, suddenly suppressed diarrhoeas

and dysenteries, have all produced, in the experience of our author and many others, hydrocephalus acutus.

Terminations. The water-stroke ends fatally—acute hydrocephalus is, for the most part, fatal ; but sometimes terminates in recovery, or in some other disease, as blindness, deafness, idiocy, epilepsy, hemiplegia, marasmus, chronic hydrocephalus. Those patients who are cured, can be saved only in the stages of turgescence and inflammation. Death seldom takes place earlier than in the fourth stage, unless where the disease begins with tumultuous symptoms. The duration of the disease will easily be collected from the symptomatology.

History. Dr. Golis contends, and we think with reason, that the disease was known to Hypocrates, as certified by the following passage.

“ ‘Aqua, si in cerebro suborta fuerit, dolor acutus sinciput et tempora interdumque alias capitis partes detinet, subindeque rigor et febris, oculorum regiones dolor occupat, iisque caligant ; pupilla scinditur, et ex uno duo sibi cernere homines videntur, et si quis surrexit, tenebræ ipsum prehendunt, neque ventum neque solem sustinent, aures tinniunt, salivam et pituitam vomitione refundit, quandoque etiam cibos, &c.’ ”

The first, however, who rightly collected the symptoms of acute hydrocephalus, and wrote a separate treatise on the disease, was unquestionably our own countryman, Robert Whytt ; since whose time, many dead and living authors have published on the same subject.

A more interesting point is, whether the disease is becoming more frequent than formerly ? Dr. Golis is convinced, from wide and accurate observation, that this, as well as croup and other inflammatory effusions have, for the last ten years, been much more frequent than at former periods. The causes of this increase of frequency are very difficult to be ascertained. Dr. Golis inclines to the opinion of many physicians, that—“ the present great frequency of this disease is to be sought for in the less frequent eruptions on the heads of children ; believing, with them, that the lymphatic system has suffered a great revolution, since which, the aches have gradually vanished, and the diseases of effusion have become more frequent in children.” We have not the least doubt but that the various tribes of human afflictions have been perpetually, and will forever continue to be, undergoing revolutions in their nature, and consequently in their treatment—events that will never permit the pathologist and physician to enjoy a holiday in their labours ; for, as it was in the beginning, we believe it will always continue—“ sufficient for the day will be the evil thereof.”

Our brethren of the Emerald Isle will be a little astonished to learn that some of the continental physicians attribute the increase of hydrocephalus to—the eating of *potatoes*! If we may judge of the material, by the intellectual, *effusions* of Irish brains, we should not be very apt to characterise them as a *watry-headed* race.

A more rational cause of the disease under consideration, has been sought in the modern physical education of children, by which they are accustomed to take spiced foods, and spiritous drinks, in the first months of their existence. Dr. Golis imagines there may be something in this; but attaches far greater importance to “the rarity and almost disappearance of the aches.”

Prognosis. Under this head we find many interesting remarks, with some unnecessary repetitions. The water-stroke, we have seen, is always fatal, and the acute hydrocephalus, when it has arrived at the third stage (effusion)—perhaps when it has gone beyond the *beginning* of the inflammatory stage, is also beyond the powers of our art.

“The more sudden the attack, and the more violent the symptoms, so much the more rapidly the stages follow one another, and so much shorter is the duration of the disease. On the contrary, the more gradually it approaches, the more mild and few the symptoms are, the less they are distinct, the slower is the transition out of one stage into the other, and the later does death terminate the sufferings of the patient.”

“If, in the stage of turgescence, or inflammation, by the use of antiphlogistic remedies, as calomel, and external and internal evacuants and counter-irritants, the hydrocephalic symptoms are entirely removed, and do not return for two or three days, during a perseverance in the remedies, there is hope of recovery; but if, during the above-mentioned days, there is a recurrence of irregular pulse, pain in the head, and vomiting, then between the thirteenth and seventeenth days, seldom later, death unavoidably follows.”

When, in the progress of the second stage, after blood-letting, calomel, &c. a general steaming perspiration breaks out during sleep, and continues several hours, it is a good omen, and arrests the effusion of lymph or serum in the cavities of the cranium. Partial and general sweats, in the fourth, or paralytic stage, are the near forerunners of death.

Even when the treatment is conducted in the most prompt and judicious manner, and attended with the most striking amendment, we are never sure of success. Dr. Golis has often seen the distressing head-ache, the violent vomiting, the optic sensibility, and other symptoms, vanish—the slow intermitting pulse become natural—the disturbed vital functions fall into or-

der—the appetite for food and drink return—and yet, in 24 or 48 hours, death ensue.

Pathology. Dr. Golis makes therapeia precede pathology, which we think is a very unnatural arrangement, and we take the liberty therefore to reverse it. We shall pass over what others have observed, in order to present the result of our author's own observations.

Dr. Golis found the brain firmer, and the blood-vessels less turgid, in the water-stroke than in the acute hydrocephalus:—the turgescence of vessels and consistence of medullary matter being always in exact relation to the duration of the disease----that is, “the shorter the disease, so much the firmer and more consistent was the brain, and so much less enlarged and less turgid were its blood-vessels, and *vice versa.*” The plexus choroïdes he always found pale, and, in chronic hydrocephalus, disorganized and diminished. In acute hydrocephalus Dr. Golis generally found the sutures a little separated---not so in the water-stroke. In a few cases, where all the symptoms denoted effusion, no water, or but a very insignificant quantity, was found on dissection. But, as we stated in our article on hydrocephalus, in the 8th number of our quarterly series, there was turgescence of the blood-vessels “which, by their volume, like real extravasation, compressed the brain.” In one case, our author believes there was a kind of effusion into the substance of the brain, which swelled up as soon as the calvarium was removed, and from which a quantity of serum oozed, when it was cut in slices. In respect to the quantity and quality of the hydrocephalic effusion, there is great variety of statements by authors.

“I found in the water-stroke from 2 to 4, or 6 ounces of turbid fluid; in the acute hydrocephalus, for the most part, the same quantity, seldom a greater, and always clear; and in the chronic hydrocephalus, 1, 4, 6, even 8 pounds of equally clear fluid.”

“Likewise I saw, in all my dissections, in the water-stroke, and in the acute hydrocephalus, as did Morgagni and many others, the choroid plexus always pale and bloodless, & in chronic internal hydrocephalus, the organization of the brain, for the most part, destroyed.”

On this subject, Dr. Golis observes, “Dr. Baillie's anatomical remarks are excellent.” With the latter illustrious English pathologist, Dr. Golis has found hydatids in acute hydrocephalus. In a very few cases Dr. G. found the effused water mixed with blood; but then there were complications, as inflammation or caries of the ears, &c.

Our readers will perceive that Dr. Golis merely states the *appearances* on dissection, but does not go into the *modus agendi* of the causes, or into any theory of the disease. We now, therefore, come to therapeutics.

Treatment of the Acute Hydrocephalus. It is much more easy to enumerate the proper remedies in this dangerous disease, than to point out the proper time and mode of their exhibition. *Hic labor, hoc opus.*

1. *Stage of Turgescence.* In this, as in all other diseases, it is necessary to use our best endeavours to discover the *causes* of the malady, and then to study the individual constitution and idiosyncrasies of the patient.

“ Thus it is very important to know whether any eruptions have been repelled ; old ulcers suddenly healed ; habitual discharges from the ears and other parts have been suddenly stopped ; whether the liver is diseased, or the mesenteric glands ; whether narcotics, or intoxicating spirits have been taken ; perspiration has been suddenly suppressed ; the brain has suffered any mechanical agitation. Each of these must be accurately considered ; the plan of treatment must be directed, not only generally against the disease, but specially, according to the exciting cause, and the constitution of the patient.”

Finding then the symptoms of turgescence, as described in the proper place, and having investigated the cause and constitution, the patient is to be placed in a roomy chamber, screened from strong light, and on a bed slightly inclined. He should be cautiously raised and laid down, as all quick and rough movements increase the giddiness and uneasiness of the head. The temperature of the room should be rather cool than warm : the head a little raised and uncovered, the bed-clothes light, a familiar nurse employed to prevent irritation ; and no force used in the exhibition of medicines, if possibly avoided. To prevent turgescence from passing into inflammation, the remedies are, calomel, antiphlogistics, evacuants, and counter-irritants.

“ Of all the medicines which have been highly praised for the acute hydrocephalus, calomel is the most efficacious ; in the turgescence, and at the beginning of the inflammatory stage, I may almost call it a specific : it excites, as it were, an abdominal or intestinal ptyalism, loosens the coagulating power of the lymph, and lessens, by the action which it excites in the alimentary canal, the orgasm in the head ; awakes more activity in the ends of the serous vessels, by which absorption is increased, and, according to my experience, makes all other purgatives, for the most part, needless, and only in cases of very diminished irritability in the alimentary canal, or in very great collections in the same, is an addition of jalap necessary.”

Our author observes that the dose and continuance of the medicine do *not* depend on the age, but the constitution of the patient, and the irritability of the alimentary canal.

“ Children of one year and under, bear, in general, a far larger dose, (for example, eight or ten grains of calomel in the twenty-four

hours,) without producing diarrhoea, colic pains, swelling of the salivary glands, than children of four, five, six, or eight years, who will scarcely take three or four grains before they begin to complain of pains in the belly. I have never seen the use of calomel produce salivation within a few days, as Wilmer and Perkins have ; and a London physician, who has written in the London Medical Journal for 1781 : with Mier and Graham, I have seldom seen this appearance at all, and then only late, after long perseverance in large doses."

In children of from one to five months, a quarter of a grain---from six months to one or two years, half a grain of calomel may be given internally every two hours, until it discharges green slimy stools four or six times—"but not purging stools." In habitually costive children "it is often necessary to give the dose of calomel every hour, and in a high degree of insensibility of the alimentary canal a few grains of *roasted jalap* must be mixed with the quicksilver, in order to produce the wished-for effect." Dr. G. found that the *roasted jalap* did not, like the *raw*, excite vomiting, which is to be carefully avoided—neither does it gripe. If the calomel produce sharp colic pains, it should be left off till they cease, or the diarrhoea (if any) subsides----then to be resumed at longer intervals, "as three or four hours, in half-grain doses, until the above effects, purging and colic, follow." In this way Dr. Golis perseveres in the use of the remedy as long as the symptoms require. The external use of mercury, our author thinks, is too slow in its effects, to be trusted to in such a disease. Dr. Golis does not agree with Whytt, Odier, Quin, Wilmer, Leib, and others, in the propriety of large doses of calomel to children in this complaint. He has seen inflammation of the intestines brought on by such practice. In this injunction we entirely agree with Dr. Golis.

"If this highly praised remedy does not always produce the wished-for effect, the bad preparation of the medicine is not unfrequently the cause ; the only contra-indications which can forbid the use of the calomel, are violent pains in the abdomen, an inflammatory state of the stomach and intestines, and weakening diarrhoea : but as, in the many hundred patients whom I have attended for the acute hydrocephalus, I have never seen inflammation of the belly, violent pains, or diarrhoea, but instead of the last, commonly constipation ; so I have never neglected, when I was called during those moments, when a cure could be hoped for, to employ this remedy. Yet, should the above-mentioned contra-indications occur, no practical physician would prescribe it under such circumstances."

Emollients. Next in importance to mercury, Dr. Golis ranks *emollients*, or what we term in this country, *diluents*. They should not, however, possess any acescent quality, on account of the calomel. Vegetable infusions, or light decoctions, as of

marsh-mallow, barley, or merely solutions of gum arabic, with or without nitre, all having the temperature of the chamber, except at those times when it is desirable to promote diaphoresis; then they may be luke-warm. Gum arabic emulsion, our author asserts, alleviates the distressing head-ache sooner than any other medicine. Digitalis, sudorifics, diuretics, and tonics, are all improper in the stage of turgescence.

As *external* means, blood-letting, cold applications to the head, stimulating pediluvia, blisters, mercurial and antimonial frictions, and enamata are the principal. General blood-letting is much less frequently necessary than local.

"According to my experience, blood-lettings are fruitless in the water-stroke, pernicious in chronic hydrocephalus, and only in the acute hydrocephalus, at determinate moments, and under certain circumstances, efficacious and necessary."

Cold applications to the head, "whilst internally the calomel has produced a derivation and reaction in the alimentary canal, are of striking efficacy." Tepid baths, or semicupia, are dangerous. Pediluvia with mustard, &c. are all that can be ventured on in this stage. For blisters, the calves of the leg are the best place of application. From mercurial frictions there is little to be expected for the removal of the turgescent stage itself.

"Yet this is the time for employing them, if we expect from them any assistance in the subsequent stages of this disease, in case it passes into them. The occiput and nape of the neck, and the thighs, are the places to which they should be applied. If the mercurial ointment (*unguentum Neapolitanum*) is employed, a whole ounce must be rubbed in in four-and-twenty hours, that is, a drachm every three hours. If calomel is chosen instead, four or six grains in some vehicle may be rubbed into the same parts. These frictions may be employed at the same time with the internal use of calomel, and may be continued for twenty-four or thirty-six hours."

The same observations apply to tartar emetic ointment, that were made on the *unguentum hydrargyri*.

Children at the breast, or reared artificially, should use the same diet as before, but sparingly.

2. *Inflammatory Stage.* In this stage blood-letting, of course, holds the first rank.

"In healthy, active, strong, plethoric children, in the first six months of life, particularly after violent agitation of the brain, and in an inflammatory season, two, three, and in pressing cases of violent tumultuous accession of this stage, four ounces of blood may be drawn; from six months to one year, three, four, even five ounces may be taken at once with great advantage to the patient; in the second, third, and fourth year, the violence of the symptoms often

demands a blood-letting of four, five, or six ounces, and in the later years of childhood, a still greater, which, according to circumstances, sometimes requires to be repeated."

The above may serve as a kind of medium, the quantity, in each case, being always determined by the actual attendant at the bed-side of the patient. Long experience has taught Dr. Golis that, when the first bleeding was sufficiently copious, a second was seldom required--repeated small bleedings never answering well. Those cases of hydrocephalus which are excited sympathetically, occur symptomatically or metastatically, and in cachetic individuals, do not bear bleeding well, and in them it must be used with the greatest caution. As, in many infants, there is difficulty in drawing blood from a vein, leeches, in sufficient number, to the temples or behind the ears, are little inferior to general blood-letting, and may, in most cases, be preferred. At a more advanced period of life, however, and in cases of pressing danger, general blood-letting must be employed. In drawing blood the practitioner must pay the strictest attention to its effects on the pulse and the pain in the head.

"As long as the former continues irregular, and not very weak, as long as it does not return to the regularity of a natural, or a febrile pulse, and as long as a diminution of the vehement characteristic pains of the head, or a state of weakness does not take place, the blood may be allowed to flow."

"At the same time at which the requisite blood-lettings are undertaken, internally the antiphlogistic remedies, and with them the calomel must be carefully administered to the patient; the former must be given luke-warm, liberally, and at short intervals; but in little infants, in doses proportionate to their age; and the latter, as I have already said of the treatment of turgescence, must be persevered in until colic pains occur, and several green stools follow. Only I must remark, that the calomel, in this stage of the disease, even in large doses, will often be given twenty-four hours without producing any stool, and that the patient will often have taken ten, twelve, fourteen, and even more grains, before a stool is procured. In these cases, as I have already said, some grains of roasted jalap should be mixed with the calomel; besides which, clysters of camomile tea with soap, honey, salt, sugar, and such like, should be employed, in order to hasten the action of the calomel, which (I now repeat once for all) is not indicated later than in this stage of the acute hydrocephalus, nor can contribute to the cure of this disease."

In this, as in the turgescent stage, diluents, of course, are proper, and with them may be conjoined gentle diuretics, particularly the infusum digitalis. Sudorifics may now also be exhibited.

On digitalis Dr. Golis makes many interesting remarks. He

considers that this medicine is by no means so efficacious here, as in acute hydrothorax after scarlet fever.

" Yet in the stage of turgescence and inflammation, in connexion with calomel and antiphlogistics, after suitable blood-lettings, where, with diminished power, there prevails an increased sensibility of the arterial system, it is very efficacious, as these combined remedies produce a powerful revulsion, by action on the alimentary canal and the urinary passages, occasioning determination *from the head*, and increasing the evacuations by stool and urine."

In Dr. G's experience the medicine had little effect on the urine, and scarcely any on the pulse.

In the inflammatory stage, cold applications to the head, mustard cataplasms to the feet, blisters, and clysters, are equally proper as in the turgescence. The foot-bath is generally productive of inconvenience. Frictions with mercurial ointment and emetic tartar are useless in this stage, as their effects come too late. Blisters, in general, should not be applied till after blood-letting. The most usual positions are, to the occiput, the nape of the neck, or between the shoulders; but Dr. G. justly observes, that their operation, in these places, is often interfered with by the cold applications to the head, or the blood oozing from leech-bites. The belly and praecordia, "because of the great sympathy between them and the head," are the fittest places, Dr. G. thinks, for large or small blisters. The calves of the legs, the thigh, and the upper arm, are also proper situations for vesicatories.

If the physician has been fortunate in preventing or arresting the hydrocephalic effusion, he must maturely deliberate on what part of the treatment he is first to remit or omit—and what medicines to continue, in order to prevent relapse. The parts excoriated by the blisters, should generally be kept discharging for some time during the convalescence, to secure perfect recovery.

" In the after-cure, or treatment of the debility which the remedies have occasioned, bark, valerian, arnica, camphor, musk, castor, deserve the preference before the other medicines of this class; and in great morbid irritability of the arterial system the digitalis, in combination with one of the above-mentioned strengthening remedies, is the most effectual medicine for rapidly removing this morbid state."

Dr. Gelis begs to draw the attention of practitioners to that state of the patient "in which the symptoms of inflammation and of effusion seem mingled with one another." Under such circumstances, the same treatment as in the inflammatory stage, would, of course, be most proper, as the mistake, if any, would be on the safe side.

Of an operation to remove the water of *acute hydrocephalus*.

we need hardly say any thing. In the *chronic* form of the disease, there is more feasibility in the proposal, and we shall allude to the cases of Dr. Vose and some others in this country, in the proper place.

Dr. Golis has made a few observations on the *palliative* treatment in the two last, or fatal stages of the disease; but in these we do not see any thing particularly worthy of notice. The following passage on prophylaxis we shall extract.

"The prophylaxis consists in a suitable diet, in the preservation of perspiration, of the action of the bowels, of the secretion of urine, of the free circulation of blood in all parts of the body, of a good appetite and digestion, in a careful prevention of every thing which can increase the determination of blood towards the head, as violent and frequent movements of the body, agitation of the brain, abuse of spirituous drinks, spiced, heating food, overloading of the stomach, collections in the abdomen, constipation, and such like; further, in a gradual hardening of the body, by moderate exercise, by gradually leaving off warm clothing, and inuring to all temperatures of weather, but always with regard to the peculiar constitution of the child, to the mode of rearing which has already been employed, and to its age. Constipation should be prevented by gentle, not drastic purgatives, especially by small doses of calomel, mixed with a few grains of rhubarb, or by change of diet. Our forefathers, who cautiously, from time to time, gave children eccoprotics, may have contributed much to the prevention of this disease."

Dr. Golis has seen some fatal instances of symptomatic hydrocephalus from inflammation of the bladder, brought on by imprudent retention of the urine during play. Parents should also be warned of the bad effects of tight dresses, immoderate eating, and violent agitations of body or mind. Nasal haemorrhages, a common and beneficial occurrence in children, should not be interfered with, unless profuse. In all hurts and accidents in children, the consequences should be guarded against by blood-letting and antiphlogistic measures. Lastly, when a practitioner is called to a case, where the symptoms are ambiguous, and he "cannot determine with certainty whether they indicate acute hydrocephalus, or some other disease which resembles it," "let him apply those means which are serviceable in the turgescence of the acute hydrocephalus, and which can do no harm in any other resembling disease." This we believe is very judicious advice.

We have now presented the reader a comprehensive, and we hope clear, analysis of the historic, didactic, and preceptive portions of the volume: the remainder (about 80 pages) being occupied with cases in illustration, and formulæ of medicines. We do not consider it necessary to attempt any delineation of such

a multiplicity of examples, especially as many of them are but very imperfectly or obscurely sketched. We shall therefore introduce a single case, taken almost at random, as a specimen.

" Henry A, four years old, vaccinated, strong, lively, and well nourished, heated himself by violent running in a spacious garden. Covered with perspiration, he sat down with bare head and breast, and back covered only with his shirt, in a pouring rain, till he was wet through. The next morning he complained of weight in the head, tension at the nape of the neck, transient lancinating pains in the forehead, feebleness, absence of thirst and appetite, and slight fever, in which, however, the pulse was at the natural quickness and fullness ; yet I already remarked irregularity in the beats; as some were hardly to be felt, and others were omitted. He was constipated, had scanty, though natural urine, the skin was dry to the feel. My first care was to restore perspiration, from which I expected much good. In the second night after this exposure to cold, the fever became greater, and, at the same time, the above-mentioned symptoms more violent ; a remarkable remission of the fever followed towards noon of the third day. Emollientia, with radix sambuci, and ammonia acetata with syrup, were the medicines which he took ; and mustard cataplasms to the feet, and clysters, which operated, were the external remedies which I employed. I expressed to the parents of the child, my fear of the acute hydrocephalus, and proposed blood-letting, at which they were more terrified than at the danger to which their child was exposed, because a surgeon, a stiff Brunonian without principles, had related some horrible stories about blood-letting, and prophesied the worst consequences. In a *consilium* with a learned physician and this surgeon, the disease was stated to be an intermittent fever, because at this time intermittents reigned epidemically in and about Vienna, and in spite of my remonstrances, Peruvian bark was ordered, which the parents with great readiness administered to their child. But the results verified my prognosis ; for the inflammatory period, with severe pains in the head, and all the symptoms which accompany this stage of acute hydrocephalus, shewed themselves. A second *concilium* with true practical physicians, attached to no system, and intimately acquainted with this form of disease, was now called, but too late. All the means employed, which earlier would certainly have hindered the effusion, were no longer capable of arresting the progress of the disease. Insensibility came on, followed after six days by palsy with the most violent symptoms, and at the end of eight-and-forty days from that time, his sufferings ended.

" *Dissection.* This was attended by the physician who in the first consultation proposed the bark, and was performed by the surgeon. The blood-vessels of the covering of the cranium were turgid ; the bared bones of the cranium were blue ; the sutures were separated from one another by a line, and the interval was filled by a bloody extravasation. The blood-vessels of the membranes and of the brain

itself were uncommonly large, and turgid with blood, as were also the sinuses, in which cruor and much lymph floated in the serum. Between the pia mater and the brain, which was firm and elastic, I met with much coagulable lymph. On the corpus callosum lay the same, about as thick as the back of a knife; and equally thick at the basis of the cranium, where it enveloped the vessels and nerves. The ventricles, in which more than six ounces of clear water were contained, were lined by the same, through all their length and incurvations. The plexus choroides was very pale, and wholly covered with lymph. The pituitary gland was in its natural state, but covered with lymph; the septum of the ventricles was broken thro'; the white substance of the brain was of a reddish colour; the viscera of the thorax and abdomen were perfectly healthy. The incredulous physician began, after this, to believe in the acute hydrocephalus. Whether the surgeon, who soon after went to Russia, was converted, I know not."

Fortunately, these "stiff Brunonians without principles" are now rather scarce in this country, where physicians attend more to practical indications collected at the bedside of sickness, than to physical and metaphysical speculations, engendered in the libraries of the learned.

In closing this analysis, we have no hesitation in stating it as our opinion, that the medical profession of this country is much indebted to Dr. Gooch, for introducing to their acquaintance an illustrious stranger, whose treatise reflects credit on the age and country in which it was produced. That Dr. Gooch's translation is sometimes rather stiff and literal, must be acknowledged —nor can it be said that, "materiam superabat opus." But where the *matter* is so excellent, the *manner* is of very subordinate consideration.

The experienced reader will readily perceive that Dr. Golis's description of the disease sufficiently proves that climate, education, and diet, often modify the features and course of maladies, and consequently that his symptomatology, *in some particulars*, does not exactly apply to hydrocephalus, as usually seen in Great Britain. Still, however, the general traits, and frequently the minutest shades of this insidious disease, are so evidently and so faithfully copied from Nature, that they will be read with interest, and remembered with advantage by practitioners of all ranks, ages, and countries. We shall look forward with much anxiety for the appearance of Dr. Golis's promised Treatise on *Chronic Hydrocephalus*, and hope Dr. Gooch will lose no time in presenting his countrymen with a version of the forthcoming essay.

III.

On the use of the Moxa, as a Therapeutical Agent. By Baron D. J. LARREY, Surgeon-in-Chief to the Hopital de la Garde Royale ; Premier-Surgeon of the Grand Army in Russia, Saxony, and France, during the years 1812, 1813, 1814, &c. &c. Translated from the French, with Notes, and an Introduction, containing a History of the Substance. By ROBLEY DUNGLISON, Fellow of the Royal College of Surgeons, &c. &c. London, 1822. 8vo. Pp. lxxvi., 148.

(From the London Medical Repository, Sept. 1822.)

Mr. Dunglison very properly introduces his translation by a history of the substance on which it treats. This part of the book appears to us very interesting, and evinces that Mr. D. is a man of very considerable learning and research. He commences it with some observations on the necessity for the payment of the greatest attention to the relation between cause and effect, in all our speculations and inferences respecting the action of remedies. But, as he very justly remarks, much previous knowledge, both of the individual textures of the animal system, and of the nature and extent of their functions, is required before we can draw correct conclusions regarding the exact influence of medicinal substances upon them. We are convinced, however much inquiries that have for their object the ascertaining the effects of medicines are liable to be exaggerated, owing to the deficiency of our information respecting the rationale of their operation, to the great difficulties by which such an inquiry is environed, to the numerous fallacies to which our conclusions on these subjects are liable, and to the interested motives that influence many who engage in them, that, when cultivated by the intelligent and active scrutinizer of nature, no more satisfactory mode of advancing medical science can be prosecuted than that which they offer.

Mr. D. alludes to, and, with propriety, regrets the opprobria to which our reasoning and our inferences respecting the action of remedies upon the system are liable, from every one who, from the smallest knowledge of the kingdoms of nature, reflects upon the mutual influences which are exerted between them.

“ Medical Practitioners,” he observes, “ seem totally to forget, that the cases which they bring forward are frequently those which do any thing rather than prove the superior efficacy of their adopted mode of treatment. This prejudice is, unfortunately, not only confined to the *routine Practitioner*, the degenerated remnant of the old *secta empirica*, but extends also to the man of science, although it is a system which he would highly deprecate in another.”

The term *moxa* appears to be of Chinese origin. It is said to have been employed, from the remotest ages, "wherever the learned characters and language" of this people are known. Its use was introduced into Europe, towards the end of the seventeenth century, "by BUSSCHOF, TEN-RHYNE and CLEYER, who had resided some time in the East, returned to Europe, and published separate treatises" on its employment in disease. The knowledge of this remedy appears to have reached this country soon after Busschof published his small work on its efficacy in gout. "Sir WILLIAM TEMPLE, who was then at Nimeguen, and was a martyr to the disease," having read Busschof's treatise, made trial of the *moxa*, and received so great benefit from its application, that he recommended it in two or three other cases of this disorder. It does not appear, however, to have been much used in this country; it therefore, in a short time, fell into total neglect. POUTEAU, however, about the middle of the last century, drew the attention of the Practitioners in France to its employment, and to the benefit resulting from this mode of applying the actual cautery, in several diseases. Since that time it has steadily kept its ground in French practice.

Moxa appears to be a generic term, comprising "every cauterizing agent employed for the cure of disease, by being placed upon some part of the body, and suffered to burn down, until it produces cauterization."

"From the earliest ages, the Nomades employed, for this purpose, the fat wool of their flocks, as well as certain spongy substances growing upon oaks, and springing from the hazel—the Indian, the pith of the reed, and flax, or hemp, impregnated with some combustible material—The Persian the dung of the goat—the Armenian, the agaric of the oak—the Chinese and Japanese, the down of the artemisia—the Thessalian, dried moss—the Egyptian, Arranese, and several oriental nations, cotton—the Ostiaks and Laplanders, the agaric of the birch—and the Aborigines of North America, rotten and dried wood, which they called *punk*. HIPPOCRATES was in the habit of employing fungi and flax for the same purpose, when the affected parts were situated near the bone; and so great was his opinion of the actual cautery, in the cure of disease, that he considered it, under any of its forms, as the *derniere ressource*, the remedy *par excellence*."

Mr. Dunglison proceeds to give a number of very interesting particulars respecting the employment of this agent, from the writers who have recommended it, from the time of its introduction into European practice until the present period. We refer our readers to this part of the work, for much curious and useful information, as well as for much important evidence of the utility of *moxa* in the cure of several disorders, after other

external irritants had failed. Mr. D. next examines, and very successfully refutes, the objections which have been urged, in this country, against the use of this substance. Moxa has, perhaps, never been tried above half a dozen times amongst us, yet we have heard its use condemned by those who had neither prescribed it nor seen it employed. This is, certainly, sufficiently improper. Candour should, at least, suggest to them, that they ought to withhold their opinion respecting the operation of a remedy of which they have had either insufficient or no evidence ; and on the efficacy of which they are, consequently, incompetent to judge. We must now proceed with the proofs, which the work furnishes, of the efficacy of the remedy in question.

Baron Larrey commences with a description of the moxa as it is employed in France. He afterwards points out its application, and the regions and particular points of the body upon which it may be placed. He subsequently makes known the specific properties of this substance, and its general effects at the time of its application : and, finally, he details cases, illustrating its efficacy, collected from a practice of more than thirty years.

Description of the Moxa.*—“ The cone or cylinder of moxa is composed of a certain quantity of cotton-wool, over which a piece of fine linen is rolled, and fastened at the side by a few stitches. This conical cylinder should be about an inch long, and of a proportionate thickness : the size, however, may be varied according to circumstances.

“ A porte-moxa is intended to fix this cylinder upon the precise spot where we wish the application to be made. The metallic ring of this instrument is isolated from the skin, by three small supports of ebony, which is a bad conductor of caloric. After having set fire to the extremity of the cone, the combustion is kept up by means of a blow-pipe ; it should not, however, be too much hastened, on the contrary, it should be made to go on slowly. In order to apply the moxa properly, the precise spot where we wish to place it should be first marked with a little ink, and all the surrounding region covered with a wet rag, having a hole in the middle, so as to leave bare the part which has been marked : this rag prevents any sparks from coming in contact with the skin. After having set fire to the top of the moxa, the base of it, held in the porte-moxa, must be placed upon the intended part, and, by means of the blow-pipe, the combustion be kept up until the whole is consumed. In order to prevent the great inflammation and abundant suppuration, which would be the conse-

* Mr. D. gives figures of the moxas, and of the requisite instruments, in his translation.

quence, the liquor ammoniæ should be immediately applied to the burnt part ; this may be done even by dropping it from the bottle."

After describing the mode of applying the moxa, Baron Larrey points out the parts of the body to which this remedy ought not to be prescribed. We refer our readers to the work for the very judicious observations of the author on this subject, and which are not applicable solely to the employment of the moxa, but extend also to all kinds of actual, and to some of the potential, cauteries. He recommends that " the number of the moxas must be varied according to the nature and duration of the disease : one or two may be applied at a time, but an interval of several days should be left between each application, because the intrinsic effects of one or two moxas are equal to those of a greater number, applied at the same time, and upon the same part." When merely superficial effects are wished to be produced, " they may be permitted to burn down without making use of the blow-pipe." Baron Larrey thinks that, under several circumstances, either dry cupping, or cupping, accompanied by a very superficial, or a more deep scarification of the part, ought to be premised. He next goes on to specify the particular derangements in which this application may be made.

He considers that a great proportion of the diseases affecting *the organs of vision* may be benefitted by the use of moxa. Incipient cataract, weakness or recent paralysis of the optic nerves, and defective action in the membranes of the globe of the eye, indicate its application in the course of the nerves most connected with those of this organ, such as the trunk and ramifications of the facial, those of the superior maxillary, and of the frontal. " When, along with the paralytic affection of these parts of the eye, there are joined symptoms of plethora in the vessels of the affected parts, the application of the moxa should be preceded by that of cupping, according to the manner alluded to, (*mouchettes* or *scarifiees*) as circumstances may require, on the temples, the nape of the neck, or the shoulders : and, if necessary, blood-letting, from the jugular vein, or from the temporal artery, should be had recourse to."

" Leeches," observes Baron Larrey, " without being attended with the advantages of cupping, have the inconvenience, especially when applied near the eye, of producing an ecchymosis, which increases the internal asthenia, and the turgescence in the conjunctiva.

" The number of the moxas must be relative to the duration and intensity of the disease ; and the effects of this efficacious remedy may be aided by aromatic, discutient fumigations, dry or moist, directed upon the eyes ; by weak embrocations of camphorated spirit upon the eyelids ; by the internal use of calomel, alone, or in combination with other substances, according to the nature of the case ;

and by electric sparks given off to the upper eyelid, where the moxa cannot be applied, should it be paralyzed."

The author is of opinion, that when *deafness* is occasioned by the impression of a sedative cause, such as by the sudden application of cold and moist air, moxa is infinitely superior to blistering, when applied over the course of the facial nerves, and around the meatus auditorius. Cases are next given, exhibiting its beneficial effects in *paralysis*, *neuralgia*, and in similar affections. The detail of these, as well as many of Baron L's observations, are very deserving of perusal.

Organic diseases of the head next obtain his attention. In *idiopathic epilepsy*, *dropsy of the ventricles of the brain*, *chronic headache*, &c., this remedy has been successfully employed by him. He orders the applications to be made all round the basis of the cranium, and especially over the junctures of the squamous sutures of the temporal bone with the lambdoidal. Cases of these affections, treated in this manner, are next given, in which the author was associated, in attendance, with some of the most scientific Physicians in Paris. These cases are very interesting.

Diseases of the chest are next viewed in relation with this remedy. Baron L. has experienced decided advantage from its employment in *asthma*. "The moxa should be placed in two lines, parallel to the lateral parts of the chest, towards the anterior attachment of the great pectoral muscles." When the disease has supervened to suppression of the cutaneous perspiration, or other habitual discharges, along with other means of restoring the suppressed functions, moxa should be used. This has succeeded, especially when preceded by one or two cuppings, even after every other mode of treatment has failed. "Intermittent neuralgic palpitations of the heart, proceeding from debility of that organ, and of the spinal marrow, are successfully combated by the moxa, which should be applied at the sides of the dorsal column, and round the circle occupied by the heart." He is also of opinion that this remedy is equally indicated in *old catarrhal affections* and *chronic phlegmasia of the pleura*.

Baron Larrey details several cases in which the repeated applications of the moxa, preceded by dry cupping, or scarifications more or less deeply performed, according to the state of the patient, were successful in removing incipient *phthisis pulmonalis*. He recommends these means to be employed as near as possible to the part of the lungs considered to be affected, and to be repeated at proper intervals. He has used the stethoscope of Laennec for ascertaining the probable seat of the derange-

ment. Upon this important subject, we would recommend our readers to consult the work before us, and to form their own opinions on this practice, in this destructive malady.

Chronic and organic diseases of the abdominal viscera are briefly considered with regard to the effects of moxa. Chronic derangements of the stomach, chronic inflammation, and schirrhous of the pylorus, and obstructions of the liver, spleen, and other viscera of this cavity, are supposed to be very considerably benefitted by this agent.

The *moxa* was long since considered the remedy *par excellence* for *rachitis*, by Pouteau. Desault confirmed his observations, and showed that the burns made by this substance ought not to be allowed to suppurate, to prevent any consequent exhaustion of the system, or hectic fever. "With this latter intention, ammonia must be applied immediately after the moxas have been consumed." The application of this cautery must be repeated as often as the state of the disorder may require it.

"The *moxa* may be employed in every period of the disease; it is better, however, to make use of it in the first stages, and before the deformity has reached a very high degree. We should avoid applying it over the spinous processes of the vertebræ, for fear of causing a denudation and caries of these bony points; the application should be made, as much as possible, over the course of the posterior branches of the vertebral nerves, between the transverse processes, so as to allow a communication at the same time with the spinal marrow.

"The intervals of its application should be proportioned to the age and strength of the patient; it is better that the treatment should be protracted, than that the individuals should be exposed to inflammatory symptoms, or to the effects of a symptomatic fever, produced by a great number of moxas, the applications of which have been too frequent. I could relate a great number of examples of success in these cases, from the application of this cautery."

Vertebral diseases and curvatures of the spine are a class of disorders in which Baron Larrey places his chief confidence in the employment of moxas, in whatever age they may occur. He commences this chapter with some observations on their pathology. We must refer our readers to the work for his opinions on this subject. He details several interesting cases illustrating his method of treatment. These are very properly varied, so that unnecessary repetition of them is avoided.

This part, as well as the following chapters on *sacro-coxalgia* and *femoro-coxalgia*, are very deserving the attention of every Practitioner, and form the most important part of the Baron's production. We know, also, that they are the result of very extensive experience. These chapters admit not, from the

manner in which they are drawn up, of concise analysis. This is, perhaps, the less necessary on our part, as we are satisfied that every Surgeon, who feels desirous of obtaining a knowledge of a remedy which promises more than any other in these very obstinate and dangerous ailments, will not rest contented until he may consult the work before us upon these subjects. We know the idea is prevalent amongst us, that the employment of moxas is no more advantageous than other counter-irritants. This is, however, erroneous. Observation has convinced us that the use of moxa is generally preferable; that it has been serviceable when similar applications have failed; that the rationale of its action is, in many respects, different from these; that its influence may be varied according as incandescence is promoted by the blow-pipe, or as it may be left to its own combustion, or as it may be impregnated by various materials, or as the scorch or burn which it occasions may be afterwards treated, and according as suppuration may be promoted or entirely prevented by subsequent applications; and, finally, that its effects may be modified according to the local treatment which may precede its application. We consider that British Practitioners are indebted to Mr. Dunglison for making them generally acquainted with a remedial agent, calculated to be of so much service in the treatment of both medical and surgical disorders.

MONTHLY SUMMARY OF PRACTICAL MEDICINE.

I. ANATOMY AND PHYSIOLOGY:

On the nature and causes of Stammering. By M. FELIX VOISIN, D. M. P.

IN exploring the nature of a disease, the most common course is to make observations on others; to study them in himself is not always the most agreeable privilege of an author, but is sometimes fortunate for society, since his inquiries, when conducted with assiduity and care, may lead to more positive results, than under ordinary circumstances. Afflicted himself with the infirmity which he so ably and accurately describes, M. Voisin was necessarily obliged to acquire a more accurate knowledge of its causes, its different degrees, and to discover what condi-

tions tended to diminish or increase it, and what means were calculated to lead, if not to a cure, at least to a satisfactory amelioration of the complaint.

In comparing the opinions of other authors with what he has observed himself, M. Voisin is convinced that they were for the most part erroneous. It has been usual to ascribe stammering to various lesions of the organs of speech; such as thickness of the tongue, relaxation of its ligaments, too great length of the frenum, bad arrangement of the teeth, &c. Such faults of confirmation, though they occasion an alteration, more or less marked, in the pronunciation, never give rise to the proper characteristic symptoms of stammering; and it is rather surprising that these mechanical ideas should be so generally adopted, seeing that they are inadequate to the satisfactory explanation of the phenomena. On such principles, we cannot explain, for instance, why stammerers, in general, sing without effort, and harangue with fluency—why, when they discuss subjects of higher interest, they express themselves with warmth and facility; and why, when in a passion, they revile with an energy and volubility which must have struck the most superficial observer. From these facts, the author thinks he is justified in concluding that, since certain emotions, in exciting the brain, render the pronunciation of stammerers sufficiently easy, there are not just grounds for attributing the affection to mechanical causes; for if a physical obstacle existed, it would be *constantly* opposed to the free exercise of the tongue, however powerful the lively cerebral reactions might be on the muscles of that organ.

From observing, then, that the affection may occur accidentally and in consequence of some hasty emotion, in persons who ordinarily express themselves with facility;—that it almost inevitably follows confusion of ideas:—that it in most cases denotes the first stage of inebriety; and that it is not unfrequently the precursor of apoplexy, the author has no hesitation in considering it as the result of an irregular or imperfect reaction of the brain on the organs of speech. This opinion is farther strengthened by what is observed with regard to the moral constitution of this class of individuals. Endowed with extreme sensibility, stammerers are vividly agitated by the passions which may be called stimulating, and their pronunciation becomes almost perfectly free when they engage in a discussion more or less animated; and for this reason, probably, they maintain in common conversation an elevated quick tone, which to strangers appears to be the expression of anger. On the contrary, the passions which induce a torpor of the brain, augment the infirmity in a remarkable degree.

It is a singular fact, placed beyond a doubt by daily observation, that this infirmity is extremely rare in the female sex. The gallantry of the other sex has hitherto prevented them from seeking to account for this exemption. It is not more easy to explain why sudden variations of temperature should augment the difficulty of pronunciation; but the fact is well established, and M. Voisin informs us that the effect of it was so evident in his own case, that the embarrassment in his pronunciation apprized him of the changes which took place in the atmosphere. The important influence of the encephalon on the organs of voice, also accounts for the circumstance that stammering is more evident in the morning, or on awaking from sleep, than during the rest of the day.

But one of the strongest proofs which the author adduces in support of his opinion that stammering depends on a disorder of the cerebral functions, is the possibility of accomplishing a perfect cure by a determined resolution, and a certain education. This truth is proved by a comparison between stammerers who engage in scientific pursuits, and those, born in an inferior station, who grow old without receiving any education. The first, being early sensible of the necessity of a free and easy pronunciation, make continual and successful efforts for imparting to the muscles of the tongue the requisite power and rapidity; while the others, removed from society, and regarding their infirmity as incurable, make no effort to rid themselves of it.

The plan recommended by the author for remedying or removing this affection, is founded on this view of its nature and causes; but on the particular course of education to be pursued he is not very full or explicit. Frequent conversations—talking in a loud voice—singing and declamation, contribute powerfully to perfect the organs of speech. He enjoins constant perseverance in these means, and adduces the well-known example of Demosthenes; and believes, from his own experience, that it is useful to put pebbles in the mouth, to correct the faulty pronunciation; the pebbles, he thinks, in filling the cavity of the mouth (*la cavite buccale*), add a new obstacle to the pronunciation, and give rise to efforts, on the part of the muscles, more considerable than if they had merely to combat the natural impediment. These prodigious efforts, the result of a lively cerebral excitement, and a firm and powerful resolution, end by imparting a force much greater than less violent exertions could give. *Med. Intelligencer.*

ROSTAN and PINEL on the Morbid Structure of the Brain.

The pathology of the nervous system has within a few years excited more than ordinary attention. We notice as peculiarly interesting, two opposite conditions of the cerebral structure, which have been pointed out by Dr. Rostan and M. Pinel, jr., one occurring in old age, the other in cases of idiotism. The softening of the brain, as described by Dr. Rostan, is characterised in its early stages by severe and obstinate pain in the head—vertigo—impaired intelligence, and greater or less derangement of the physical and moral functions ; and subsequently by many of the symptoms of apoplexy. These soon assume an aggravated form ; the intellect and senses are utterly abolished ; perfect coma succeeds ; the limbs become motionless, and the patient dies commonly on the fourth or fifth day, presenting in most cases the symptoms of low fever.

Upon dissection, the substance of the brain is found to be soft and gelatinous—its convolutions effaced ; its colour changed, being yellowish green if the disease has succeeded to an old attack of apoplexy, and of a reddish hue when the affection is primary. Every part of the brain has been the seat of this disorganization, but the corpora-striata, the thalami nervorum opticorum, and the central part of the hemispheres are most commonly affected, and in some cases there is sanguinous effusion, and in others evident indications of inflammatory action.

M. Pinel has detailed four cases of induration of the encephalon or spinal marrow, occurring in patients affected with idiotism : upon this organic derangement he makes the following observations, after having given his cases : “ Examined attentively, the indurated nervous tissue resembles a compact, inorganic mass ; its colour, consistence, and density, cannot be better compared than to those of a hard egg ; the cerebral substance is sunk down and compressed ; it appears entirely deprived of blood-vessels ; the eye can perceive no trace of capillary vessels in it ; submitted to the action of fire, it becomes shrivelled up, produces a strong and permanent odour, and leaves a blackish, shining, and compact residuum. A portion of sound brain, exposed to the same action, gives opposite results ; it dilates, gives scarcely any odour, and the residuum is brownish and light. The induration appears to affect the medullary more than the cineritious substance ; I have never observed it in this latter tissue. The nervous pulp of the diseased part tears off in fasciæ, and in fibres, the direction of which varies in the brain, cerebellum, and spinal marrow. In the brain the fibres are seen radiating over the whole periphery of that organ, and proceeding in a converging manner towards the corpora striata ; the induration renders this disposition of the fibres very apparent ; they enter into the corpora striata, traverse the optic thalami, mingle in the peduncles at a small portion of cineritious substance, pass out, before the pons varolii, and, having arrived

at the inferior edge of the tuberculum annulare, continue with the spinal marrow, of which they are evidently the prolongation : re-ascending from the spinal marrow towards the brain, it is still more easy to be convinced of it.

" In the cerebellum, the direction of the fibres is different, when we examine it at the interior or exterior of the organ. Externally, the diseased tissue tears in horizontal, and almost circular, fibres ; internally, the nervous filaments are seen to proceed and re-unite towards the tuberculum annulare.

" If a portion of indurated spinal marrow be torn in the direction of the median line, the medullary filaments of the right side are observed to tear into the left, and *vice versa*.

" This general disposition of the nervous fibres, for a long time denied, but put beyond all doubt by the works of Winslow, Vicq-d'Azir, M. M. Cuvier, Gall, Chaussier, and Beclard, is confirmed by pathological anatomy. What we are able to say respecting the causes of the induration of the nervous system is reduced to suppositions and conjectures : it is probable that in idiots from birth, the induration of the brain is the result of a disease of the foetus in utero. What can be the nature of this malady ? Is it inflammation ? We have no knowledge upon this point of pathological anatomy ; it cannot be forgotten, however, that induration of the tissues is a frequent termination of their inflammation ; that the cellular system, the liver, and other parenchymatous organs, present frequent examples of it, and that the encephalon, being submitted to the same laws as the rest of organism, may likewise undergo the same alterations.

" Induration of the nervous tissue being a disease very little known, it is not astonishing that we have yet no curative means to oppose to it. Is it probable that we may ever find any ? How can the nervous pulp, when so considerably deranged, be restored to its natural state ?

" If induration may facilitate the knowledge of the structure of the encephalon, it may likewise throw some light upon the history of its functions. Already, through the alterations of the nervous system, we have been enabled to learn several physiological facts of the highest interest, relating to the different lesions of sensibility and motion. The application of pathological physiology to the history of the cerebral functions can only afford positive results ; it only can complete our knowledge of them, and may rectify many errors. These researches ought, therefore, to merit all our care and all our attention."—*Lond. Med. Repository*.

II. SURGERY AND MIDWIFERY.

Lithotomy.

Mr. Camoin, of Odessa, describes an operation for the *Extraction of Stone by the Rectum*, performed by him in the hospi-

tal of that city. After having introduced a sound, as in the ordinary lithotomy, the forefinger of the left hand, in a state of supination, was introduced into the rectum, on which the flat side of the bistoury was passed, as recommended by Mr. Sanson. An incision was then made from within, outward, in the direction of the raphe, through the lower part of the rectum and spincter ani; by means of which the prostate gland could be easily explored. The finger then being carried beyond the gland, the groove of the sound was felt through the rectum and lower part of the bladder, the point of the bistoury was passed into it, and an incision was made about an inch and a half in length. The liquid contents of the bladder having escaped, satisfied the operator that he had penetrated its cavity; upon which he withdrew the sound, and introduced the forceps. Some little difficulty was experienced in finding the stone, in consequence of its adherence to the neck of the bladder. It was, however, detached by the forefinger, seized with the forceps, and easily extracted. Not more than a tea-spoonful of blood was lost. The operator has such confidence in this method, that he professes his determination, in future, always to adopt it: but, in consequence of some impediment offered to his incision by the constriction of the spincter, suggests the expediency of previously introducing a dilating gorget into the rectum, which, by keeping back its posterior surface, and by enlarging the anus, allows greater space for the proceedings of the operation.—*Med. and Phys. Journal.*

Uterine Hæmorrhage.

In a case of very lingering first labour, and after the child's head had been impacted in the pelvis for ten hours, with little or no advance, and when the uterine efforts were decreasing rather than increasing, Dr. Campbell* applied the forceps, (and we sincerely think in this case justifiably, though we are no great advocates for the forceps in general) and delivered the head after an hour's strong exertion. The uterine efforts were still unequal to the expulsion of the body, and manual assistance was given in its extraction. After exhibiting half a wine glassful of brandy, as a cordial, the hand was placed on the abdomen, and the uterus could be felt "like an immense flattened pouch;" the placenta also could be readily recognized within it. Frictions over the abdomen, and a mode-

* Dr. W. Campbell. *Ed. Journal*, 65.

rate degree of extracting force applied to the chord, had no influence in exciting the action of the uterus. On pressing the hand on the latter organ, a gurgling noise in the passages was heard, and a stream of blood immediately issued over the bedside. The appearance of the patient and the state of the pulse corresponded with this alarming phenomenon. The hand was instantly introduced into the uterus, which was pouring out blood in profuse quantities, and, on reaching the placenta, Dr. C. discovered that the greater part of it was detached—thus causing the haemorrhage. Pressure with the back of the hand on the internal surface of the uterus had no effect in rousing it to action. The Dr. therefore immediately, and with ease, extracted the whole of the placenta. The flow of blood, nevertheless, continued unabated, although the clenched hand was pressed, in different directions, on the bleeding surface, and the patient appeared to be sinking. The pulse left the wrist for about twenty minutes, and universal coldness prevailed. The patient lay insensible, but still breathing under great restraint. Another practitioner was now sent for; but before he arrived, the uterus began to contract and restrain the haemorrhage.—The pulse was returning, and the patient began to give faint answers to questions. The other practitioner grasped the uterus through the abdominal parietes, while Dr. C. pressed with his hand on the concave surface of the organ. It was full an hour before the hand could be withdrawn, and with it several coagula came away. About 66 ounces of blood were lost.

From the moment that the haemorrhage was noticed, Dr. C. forced the patient to swallow a wine glassful of undiluted whiskey, every five minutes, until the pulse returned—making in all about thirteen ounces of spirits. Injections of spirits and water were also thrown up the rectum. No bad consequences followed, and the lady had a rapid recovery.

Dr. Campbell, as appears to us, did right in proceeding to extract the child by means of the forceps. Whether it was afterwards necessary or proper to give the half glass of brandy, the account is hardly sufficiently explicit to shew. As a general rule, we think it injudicious to give a powerful stimulant immediately after the child is born, but circumstances may undoubtedly render this a very necessary practice.

There seems to have been quite cause enough, for introducing the hand to extract the placenta; this operation is always very much facilitated by making an assistant press with both hands equally upon the abdomen, for thereby the uterus is kept more steady for the operation, and a disposition to contract is given to the uterus, on which the success of the operation mainly

depends. It does not appear from the account, that this very necessary part of the process was attended to. We are not aware that "the clenched hand pressed in different directions on the bleeding surface of the uterus," is likely to excite contraction; irritating the *os uteri* seems to be a more effectual mode. The late Mr. Cruickshank used to recommend, that a sponge dipped in vinegar and water should be carried by the hand into the uterus, and the liquor be squeezed out into the cavity, with the view of producing contraction; this we have never tried; but we have introduced rags, dipped in vinegar and water, or, what we prefer, port wine, into the vagina, for the same purpose, and often very successfully.

A wine glassful of undiluted whiskey is forced upon the patient every five minutes, "from the moment the hæmorrhage was noticed." Had this been given from the moment syncope occurred, we should not have objected to it. But to employ cordials and stimulants during the active state of hæmorrhage, not only seems to us uncalled for, but positively hurtful. The generally adopted practice of cooling the apartment and the patient; of applying cold vinegar and water over the abdomen and pubis; of making pressure upon the uterus; of introducing ice into the vagina, or, as before mentioned, port wine, seems to us much more proper practice. The exposure to cold, however, we have repeatedly seen carried too far; it has been persisted in, after the hæmorrhage has ceased, or become very passive, and syncope has come on. At such a time the cordializing plan requires to be adopted.

We are not very strong advocates for opium, either solid or fluid, in uterine hæmorrhages. But as a remedy for some of the consequences of hæmorrhage, nay, perhaps for some symptoms attendant on the state of hæmorrhage, it may be occasionally useful. The restlessness and irritability consequent to, or accompanying, uterine hæmorrhage, particularly, is perhaps best quieted by laudanum.

If we are right in our opinion, respecting the use of laudanum in floodings, there must be much mischief occasioned by its so general use. But names of such high authority are mentioned in favour of it, as almost leads us to doubt the accuracy of our own observations and reasoning.—*Medico Chirurgical Review*.

III. PATHOLOGY AND THERAPEUTICS.

Report of the Whitworth Hospital, containing an account of Dysentery, as it appeared in Dublin, 1818, by JOHN CHEYNE, M. D., F. R. S. E., &c. &c.

In many respects the dysentery of 1818 resembled that which occurs in tropical countries. The functions of the liver and skin were disordered, in the former as in the latter variety, from the commencement to the termination of the disorder; "the skin was remarkably unyielding," and the biliary secretion was often suspended for many days. A full, hard, or strong and quick pulse, tenderness of the abdomen, and frequency of the stools, marked the commencement of the disease.

"When the disease continued without relief for twelve or fourteen days, a degree of emaciation usually became observable, much more rapid in some than in others, and which was always an alarming symptom; when, added to emaciation, a patient in the second or third week of dysentery acquired a haggard look, when he had a quick pulse, and an abdomen impatient of pressure, we had little hope of his recovery.

"A harsh, dry, opaque, dirty-looking skin, a florid, clean, varnished tongue, vigilance, a hollow eye, and pallid, wasted, faded cheek, a desire to go to stool immediately after drinking, pains in the knees, and cramps in the legs, fits of dyspnoea, a tendency to oedema and ascites, belong to a more advanced stage, but not to the last, which was characterized by extreme emaciation, supine posture, involuntary stools, a thin reddish secretion flowing without check, sordes on the teeth, hiccup, tendency to delirium, difficulty of swallowing, and a pulse like a thread."

"It was observable that dysentery frequently occurred at that period of recovery from fever when there seemed the greatest liability amongst the convalescents to relapse. Dysentery, whether its connexion with fever could be traced or not, often commenced with a rigour, and terminated in free perspiration; it was sometimes converted into a fever, while, on the other hand, fever was frequently converted into dysentery; and, lastly, during convalescence from dysentery, several persons sustained an attack of fever; in short, these forms of disease were convertible the one into the other; so that the opinion of Sydenham, that dysentery is a febris introversa, that it is fever turned in upon the intestines, received support from our observations; and it is not unreasonable to suppose, that as these patients in my wards, in common with most of the poor of the city, had been exposed to the contagion of fever, this contagion, according to the condition of the system at the time of its application, or some other modifying circumstance, may have produced at one time fever, at another dysentery. The nurses, who escaped dysentery, were for

the most part seasoned to fever, and at least two of those who suffered under the former disease had not been affected with fever during the epidemic."

At the period at which the disorder was at its height, a majority of the patients died who had been ill more than six or seven days, and of those who were emaciated scarcely one recovered. Sometimes a translation of derangement took place to the lungs, and terminated the life of the patient, by giving rise to effusion in the cavity of the pleura, with congestion of blood in the substance of the lungs. "Death sometimes occurred unexpectedly, from the escape of the contents of the intestines into the cavity of the peritoneum, in consequence of a portion of that coat being destroyed by ulceration." Dysentery was often productive of ascites, anasarca, and very rarely of hydrothorax. In some instances, symptoms resembling phlegmasia dolens occurred.

We cannot convey a better idea of the morbid appearances observed on dissection than by quoting the full and excellent account given by the author.

"We may divide the preparations in the Whitworth Hospital, made at my request, into two classes, those in which the coats of the intestines are not thickened, and those in which they are. Of the first class, there are specimens of the following appearances:—The mucous membrane increased in vascularity, without abrasion or ulceration; the mucous membrane covered with coagulable lymph; the mucous membrane simply abraded, its epidermoid coat removed; the mucous membrane ulcerated, the portions of membrane intervening being of a natural appearance; lastly, the mucous membrane partly ulcerated, partly covered with coagulable lymph.

"In the second class are the following genera:—The mucous membrane simply abraded; the mucous membrane ulcerated, the portions between the ulcers being of a natural appearance; the mucous membrane rugous and ulcerated; the mucous membrane ulcerated and filamentous, hanging in shreds as if sphacelated; the mucous membrane partly ulcerated, partly removed, exposing the muscular coat. In many of these preparations, the mucous membrane, when not eroded or ulcerated, is covered with an exudation of coagulable lymph.

"In a good many dissections there were numerous holes large enough to admit the head of a pin, more especially in the rectum and lower part of the colon, regularly round, and for the most part vascular in the centre, with elevated edges; these apertures were at first supposed to be small ulcers, but dissections, made after dysentery had attained an advanced stage, left little room for doubting that they were the ducts of the mucous glands enlarged, and, in the advanced stages, either ulcerated or connected with a cyst formed of

the lining membrane of the duct, which secreted a gelatinous matter, whereof these cavities were often full.

"The liver was, in a majority of the dissections, apparently sound, but in a good many instances remarkably otherwise; in two cases there were abscesses formed in its substance, and in a considerable number of bodies it was in a state of great sanguineous congestion."

Dr. Cheyne very appropriately commences his account of the plans of treatment which he employed, with a description of the locality and internal arrangements of the Whitworth Hospital, which appear, upon the whole, to have been good. He very justly remarks, that it is a very great error to suppose that a disease admits of only one method of treatment. In the course of the season the practice at the hospital underwent several changes, particularly at the advanced periods of the disorder. The treatment by means of mercury did not succeed so generally as he expected. Calomel and ipecacuan, the blue-pill and ipecacuan, and calomel and opium, both in small and in very large quantities, often failed when the affection became established. Dr. Cheyne very wisely alludes to the very improper custom which an increase of pathological knowledge is now banishing from practice, namely, that of giving purgatives with the idea that the disorder arises from the retention of an irritating cause. Dr. C. generally found, that purgatives, however mild, increased the suffering, and quickened the fatal progress of the disease. Of the cases which were not attended with much fever or pain, and which were treated at the commencement of ailment, "a purgative in the morning, a dose of the pulv. ipecacuan. comp. early in the afternoon, and again at bed-time, with low diet," restored many to health. In several cases, however, the disease terminated spontaneously, as the concurrent fever often did, in free perspiration. When the complaint was attended with considerable pyrexia, tenderness of the abdomen, mucous and bloody stools, with tormina and tenesmus, Dr. C. preferred venesection, the Epsom or Rochelle salts, or crystals of tartar, with a small quantity of tartarized antimony in rose tea, or in a light infusion of columbo, "then a bath in the evening, and, lastly, an opiate, rendered diaphoretic," at bed time. This method was frequently successful when used in an early stage of the disease.

When the abdomen was tender, and the stools consisted of bloody mucus, with pyrexia, venesection was never omitted. The advantage of copious blood-letting in such cases was often great. The blood was frequently cupped and buffed. Dr. Cheyne considered that, upon the whole, "venesection was the remedy the least equivocal in its effects, the most uniformly use-

ful," of any which were employed at the Whitworth Hospital. In cases where ulceration was apprehended, or in which the disorder commenced with unusual violence, and when there were intolerance of the slightest pressure, agonizing pain, unceasing tenesmus, and great pyrexia, Dr. Cheyne employed the following practice :—

" In the course of a single hour the patient has been largely blooded, has taken two grains of opium and a scruple of calomel, has had the warm bath, and been swathed in flannel, by which means we have obtained breathing time to pursue our plans more deliberately. Were the same cases again to be placed under my care, I would not hesitate to prescribe opium in doses of four or five grains, as it was the opium chiefly which seemed to me to arrest the progress of the inflammation, and whatever in such a case procured respite for the patient from agony, sometimes proved of permanent benefit. After the large dose of calomel and opium, calomel, in doses of five grains, with half a grain of opium, every third or fourth hour, was given till it produced ptyalism; as soon as the mercurial influence was apparent from the state of the mouth, the mercurial was laid aside, and a mixture with balsam of capivi was given every fourth or sixth hour, from which the greatest relief was often obtained."

The stools became more natural and less frequent, and the patient frequently recovered. When the copaiva draught lost its effect, the chalk julep, or catechu mixture, with laudanum, was substituted. The recommendation of our author to give a very large dose of opium, exactly coincides with a similar practice employed by us. Dr. C. frequently ordered bleeding when there was every reason to suppose that ulceration existed in the intestines, and with great temporary relief; "and in a few cases, when followed by blisters, mild aperients, and anodynes, the relief was permanent." When in the advanced stage of the disease there was much tenderness or pain confined to one region, leeches were preferred to the lancet. The bleeding from them at that stage of the disorder, and state of the system, required to be watched.

Dr. Cheyne makes particular mention of the use of crystals of tartar, which was recommended by a Physician as a complete panacea. This remedy was fairly tried.

" He administered the medicine, which he required to be very finely levigated, to many of the patients with his own hands. The dose to an adult was half an ounce, which was repeated every fourth or sixth hour. We soon discovered that this medicine, when taken precisely as prescribed, failed in many instances; but it must be allowed that some patients who took it were restored to health, who, I think, would have sunk under any of the methods of treatment then in use." " The first dose of cream of tartar sometimes aggravated

the patient's distress so much, that several individuals refused to take a second. But, when persevered in, it often brought down bile, and then, by giving it only once or twice in the day, and alternating with it Dover's powder, the capivi, or chalk mixture, and using baths, the cure was completed.

"In the property of bringing down bile, I think it must be admitted that the cream of tartar excels most other purgative medicines, and in this way its efficacy in dysentery may probably be explained; for that the suspension of the biliary discharge is a very important part of the disease, few will deny, who have seen the great relief which sometimes, in this disease, follows a discharge of bile. An observation made by Home relative to cream of tartar is perhaps deserving of more attention than has been paid to it. He considers the efficacy of cream of tartar in dropsy to depend on its resolving obstructions in the liver; and he adds, that he has often used it with great success in obstructions of the liver.

"The common saline purgatives appeared to us of more easy operation than purgatives derived from the vegetable kingdom.

"A very full trial was given to injections, and of these I prescribed a great variety: laudanum in mucilage, starch, or linseed tea, which produced the usual sedative effect; and suppositories of opium were sometimes very useful. There were some preparations, not in general use as injections, tried, such as the black wash, a weak solution of the nitrate of silver, rectified oil of turpentine rubbed up with mucilage, but without any decisive result: much less irritation was produced by them than might have been expected, but they did not check the disease. Equal parts of lime-water and milk, a pint of each with the addition of laudanum, was found a very good injection. A solution of the superacetate of lead, combined with an opiate, ranked high with us.

"With respect to diet, farinaceous food seemed entitled to a preference. We endeavoured to avoid as much as possible any kind of nutriment which had a tendency to quicken the pulse, or to leave much fecal residuum."

Dr. Cheyne found that castor oil aggravated the tormina and tenesmus; when, however, "it was combined with oil of turpentine, instead of being more severe in its operation, it operated with less pain." He considered that such a combination more effectually reduced that tumefaction of the belly, which often distressed the patient, than any other. Oil of turpentine has been given by us in this disease, suspended by a mucilage in the weak infusion of capsicum annum, as soon as the inflammatory symptoms were reduced by bleeding, or when the disorder assumed a chronic form. This combination ought only to be occasionally administered, and the strength, as well as the frequency of its employment, judiciously managed. Mucilaginous draughts, and injections, strongly acidulated with lime-juice,

and combined with infus. capsici and tinct. opii, have, under many circumstances and states of dysentery, been found, by ourselves and by others, most beneficial, both in a temperate and in a tropical climate.—*Lond. Med. Repository.*

M. SERRES on *Apoplexies of the Cerebellum.*

“ In a memoir published some years ago upon the organic diseases of the encephalon, I occupied myself with the solution of the following problem :—An apoplexy being given, to determine its seat by the symptoms. I subsequently established a considerable number of facts. 1. That every apoplexy had its seat in the encephalon, or upon its envelopes ; 2. that apoplexies, without paralysis, principally affected the meninges, and gave occasion to diverse effusions according to the degree of irritation of those membranes ; 3. That apoplexies, complicated with paralysis, had their seat in the encephalon itself, which was always materially altered in structure, whether there was or was not consecutive effusion ; 4. I have also established that the seat of organic alteration varied according to the diversity of the paralysis ; 5. I have pointed out the existence of apoplexies of the cerebellum, of which, as far as my knowledge extends, no author has yet given us an example. It is to these last apoplexies that I propose, in this memoir, to draw the attention of Practitioners.

“ A man aged thirty-two years was brought in the night to the Hotel Dieu, by the National Guard of Paris, in the month of April, 1814. The people who brought him informed me that he had been found upon the Quay with some prostitutes, one of whom, who was present at his reception into the Hospital, declared that it was *in coitu*, after having drank to a great extent, that he fell down in the state in which we saw him. His face was extremely red, the heat of his head and neck much elevated, and the pulse very strong and frequent, beating ninety times in a minute. The respiration was interrupted and slow, the inspirations being ten or eleven in a minute ; the sleep was profound ; he gave no signs of sensibility ; and from time to time was affected with convulsive movements, and a *tetanic* rigidity, which continued for three or four minutes. On putting the patient to bed, we perceived that he was in a state of erection ; the parts of generation were hot, whilst there was coldness of the extremities. Thirty leeches were applied to the jugulars, and a copious bleeding practised at the foot, which produced no effect.

He died on the twelfth day of his entry into the Hospital. The rigidity of the penis had ceased four hours before death.

"The first idea that occurred to us, at the sight of the unusual erection with which the patient was affected, was the presumption, that he had been making use of some preparation of cantharides, which, as every one knows, commonly produces considerable irritation in the parts of generation. We were prepossessed with this opinion at the time of the *sectio cadaveris*, and it appeared to us still more probable from the parts being extremely swollen, red, and the *glans* being covered with livid, gangrenous-looking spots. Under this idea some trials were made upon the liquids contained in the stomach and intestines, but which gave no satisfactory result. We afterwards proceeded to open the cranium. The encephalon being clearly exposed, all the *eleves* present were struck, as well as myself, with the great irritation of which the cerebellum in particular had been the seat. The hemispheres of the brain presented no trace of organic disease. It may be readily conjectured that this organic derangement did not confine our views to its seat. The opinion of Gall respecting the connexion between the genital organs and the cerebellum was too well known to avoid being naturally presented to the mind: and it appeared to us that in this case the rigidity of the penis, and the inflammation with which the parts of generation had been affected during the short continuance of the disease, were connected with the irritation of which the cerebellum had been the seat. So extraordinary a pathological connexion could not, however, be established by a single fact: before admitting the opinion, it was necessary to see if it would be verified in analogous cases.

"With this view I consulted the numerous apoplectic cases which I had collected, and which served to compose the memoir above-mentioned. In that number will be found two histories of individuals who had presented inflammations of the cerebellum, and who, whilst the apoplexy continued, had well marked erections, and copious emissions. One of them was communicated by my colleague, Dr. Lafore, at that time *interne* at the Hotel Dieu. I was only possessed of these three cases when I published my first work upon the organic diseases of the encephalon, and their great singularity was the principal reason of my not making them known at that time. New facts have occurred to confirm the first; and we may not only regard as positive the existence of apoplexies of the cerebellum, but also hope that we may be able to distinguish the majority of the cases, from those which affect the other parts of the encephalon.

"Thomas Marie-Anne, labourer, aged fifty-five years, of a san-

guine temperament, strong, and much addicted to venery, passed a part of the day of the 19th of April, 1818, in a pot-house. During the night he was attacked with somnolescence, stupor, momentary agitations, and loss of consciousness: he returned no answer to the questions which were put to him; he had erection during a part of the night.

" He was brought to the Hospital on the morning of the 20th of April, and presented the following symptoms:—Face red and tumefied; slight stupor, from which he might be roused; respiration short, and sighing at intervals; inspirations thirteen or fourteen per minute; pulse 80, full, strong, and frequent; hemiglegia of the left side of the body, principally of the leg; spasmodic agitations of the right side. He was bled from the right jugular vein, a purgative clyster was administered, and barley-water and infusion of arnica ordered for drink, with an anti-spasmodic potion. On his return to consciousness, after the bleeding, he appeared surprised to find himself in the Hospital; in the evening a very strong paroxysm; the face much injected, swollen; heat of the neck very considerable; respiration slow; inspirations eleven or twelve per minute; pulse hard, and more frequent than in the morning, 85, 91, and 94 per minute; profound somnolescence; insensibility to all kinds of excitement; very violent satyriasis; tumefaction and redness of the scrotum; immobility of the left side; a convulsive movement of the right; abundant emission at the end of the paroxysm; bleeding and sinapisms to the legs were made use of; after the bleeding he remained in the same state; rattling in the throat during the night. On the morning of the 21st—face livid, swollen; lips and nose cold; respiration very slow and short; pulse small, irregular, and very frequent; distention of the mouth; tumefaction and lively redness of the genital organs; abundant emissions;—at nine o'clock he died.

" *Necrotomy.*—On raising the skull-cap, a quantity of black blood escaped. All the sinuses of the dura mater, as well as the confluence of the sinus, were filled with black coagula; the vessels of the pia-mater were distended through their whole extent; the substance of the brain showed no particular appearance; but the cerebellum was redder than in its natural state. When a portion of the superior vermicular appendix was cut into, the action of the air quickly communicated to it a lively red colour; the whole of the white substance of this part had changed its colour, and appeared as if it had been macerated in blood. When plunged into water, it lost its colour, but never returned to its natural appearance. Some parts of the interior of the processes appeared corroded; but there was no distinct

foyer. The process was divided from before backwards; we found thick black blood enclosed in the fourth ventricle. This liquid had penetrated forwards into the fissure of Sylvius, and backwards into the *calamus scriptorius*.

“On plunging the cerebellum into water, we observed that this blood proceeded from a *foyer* situated in the central part of the right hemisphere of the cerebellum; the *tuberculum annulare*, towards the origin of the fifth pair of nerves, was inflamed, as well as the *corpus olivarium*, and the commencement of the spinal marrow; the lungs were gorged with blood, as well as the right cavities of the heart, and the ascendent and descendent *venae cavæ*; these organs presented no other organic derangement; the intestinal canal showed nothing particular.”

Two other analogous cases are related, in both of which, from the affection of the genital parts, accompanied with the other symptoms, M. Serres announced some lesion of the cerebellum, which prediction was confirmed by dissection.

When *apoplexia cerebelli* occurs in the female, M. Serres supposes that the diagnostic marks may perhaps be pointed out by clitorismus, or a tendency to nymphomania. One case, only, in confirmation of this opinion, is adduced by M. Serres.

“Marie-Jeanne-Josephine Dubourg, aged thirty-three years, mantua-maker, was addicted, at an early age, to venereal excesses: the catamenia did not appear until the age of twenty, although she had been accustomed, in a house of bad repute, to excessive venery. Until the age of thirty, according to her own account, she had been fatigued, but never satiated, with venereal pleasures; and notwithstanding the efforts of her relations for the purpose of withdrawing her from the scandalous life which she led, she was, as she observed, irresistibly impelled towards it.

“Ashamed of this state, she submitted to a violent mode of treatment. The clitoris was burnt, under the hope of putting an end to this venereal mania, which was regarded as the cause of phthisis pulmonalis, under which she laboured. She was discharged from the *Hotel-Dieu*, without having experienced the relief which she expected, and resumed her former habits. She experienced, moreover, very violent headaches, and became suddenly imbecile at the age of thirty-two. She died of phthisis pulmonalis.

“*Necrotomy*.—On dissection we discovered an induration of the superior and inferior veriform process; in some places there were small ulcerations, each capable of containing a common issue-pea; the edges were hard, yellowish, and the bottoms lined with a thick membrane; the cavity contained a yellowish serum; the whole of the cerebellum before the superior vermi-

form process was softened, and of a yellowish white colour; the substance of the cerebellum resembled that of the foetus of the second month, or of the commencement of the third. The cerebellum surrounding the vermiform processes was inflamed, and harder than common. The arteries of the cerebellum were more than usually developed. The body was injected in order to examine these last arteries; and my attention was also directed to those of the pelvis, where all the divisions of the hypogastric artery were found increased in size; the uterine, the vaginal, the vesical, and the hemorrhoidal, were prodigiously dilated. Did there exist any connection between these developments of the arteries of the pelvis and the nymphomania? I am of opinion that there did, and I found this assertion upon anatomical inspection of these same arteries in phthisical patients. Every one knows that these subjects are excessively inclined for coition and masturbation. In about sixty dissections, which I have made with this intention, I have constantly found the divisions of the hypogastric artery much augmented in *calibre*. Whether this dilatation of the arterial system is an effect or cause, it is important to know. I have also examined the cerebellum, but have found nothing remarkable, either in volume or weight."—*Lond. Med. Repository*.

Dr. BRERA on *Hydrophobia*.

A more awful visitation upon the human race cannot exist than that which forms the subject of this memoir. Hydrophobia spares neither age nor sex: the bloom of youth and the vigour of manhood are alike impotent to avert its destructive career, and the unfortunate victim is rapidly cut off, with an intensity of suffering scarcely to be equalled. Hence we seize every opportunity of placing before our readers any fact, or even speculation, which may tend, in the most remote degree, to throw light upon the disorder, or to excite a spirit of inquiry respecting it. Thus it is that scarcely a month passes but we record something on the subject, however sceptical we may be with regard to the truth of the statement, or the efficacy of the treatment which may be advised. Like the drowning man, indeed, we catch at a straw, when we recount the prophylactics and specifics which appear from time to time; but the cases of this author come before us in a shape, and with an evidence, upon which credulity would be folly; and we press them the more particularly upon public notice, as containing the details of well conducted, and apparently successful, experiments for

securing the system against the ravages of the disease under consideration.

Of thirteen persons bitten by a rabid wolf, on the 1st of November, nine died, and four escaped: the latter *only* were submitted to the experiment, which seems to have been successful; while five of those who died were subjected to prophylactic treatment of a different kind. The facts we shall leave to speak for themselves, merely premising that, in three of the successful cases, some horror of water is described to have been experienced.

The remedial agents which appear to have been efficacious, were belladonna, mercurials, and the warm bath. The first was given in liberal doses, gradually increased to two or three drachms a day, and continued until each patient had taken from seven to eight ounces. Calomel, corrosive sublimate, and mercurial frictions, were also employed, until salivation was excited, and the warm bath repeated; although in three of the four cases the sight of water produced anxiety and convulsions. In the cases which terminated fatally, no belladonna was employed.—*Lond. Med. and Phys. Journal.*

Dr. GOSSE on Diseases of Professions.

The employment in which a man habitually engages exerts a most material influence on his form and constitution. His profession stamps indelibly its own image upon his corporeal as well as mental frame. Some trades act upon the whole person: others impress a peculiar character on some important organ, and disturb its functions. The different powers of mind undergo, also, a correspondent change. The eyes are injured in cases where much straining, or a strong light, is required, or where noxious or dusty particles are constantly applied to them. The hearing is injured in cases where the workman carries on his occupation in the midst of noise and tumult. Thus also, in other cases, the smell, the taste, and the touch, are impaired. The sensibility, also, becomes morbid in artisans who work at sedentary employments, or amidst noxious exhalations, or in situations where a very high temperature is employed. Sudden or long continued exertion, as in runners, dancers, &c. frequently injures the part which is thus used. We need not specify the numerous cases in which the digestive organs suffer from the employment in which the individual is engaged. The urinary organs, and the action of the skin, are, in like manner, often injured. With respect to the lungs, these parts are often materially disorganized by peculiar employments. Noxious vapours, and especially the different kinds of dust which accom-

pany certain trades, are often very deleterious. Millers, bakers, flax-dressers, and those engaged in similar occupations, are peculiarly liable to diseases of the lungs. How much too, are the actions of the heart, and the circulating system interfered with, by the anxieties which attend upon the exercise of some of the professions! Eruptive diseases are produced by other occupations. Tailors, grocers, warehouse-men, chimney-sweepers, &c. prove this fact.*

These details form but a melancholy picture of the consequences of that necessity for labour, which nature seems to have imposed upon mankind. Well may the years of man be numbered, if the employment by which he lives thus sows the seeds of death: but when such consequences follow any position, we are naturally led to ask whether the position be really proved. We apprehend that, in many respects, it is not. The days of man are, indeed numbered; and, yet, we feel that labour is so congenial to his health and happiness, that we are constrained to look further than the mere difference in the kind of labour for the cause of this death of the body. We think that this cause may be found. It has been long our opinion, that the body would not decay at the end of three score years and ten, if the health had been previously and uniformly good. Few men die from a decay of the general system, most of our modern improvements in medicine being founded on the fact, that diseases of the general system are preceded, or accompanied, by an unsoundness, or a diseased state of some particular organ: and thus, by the same rule, we can conceive how the future death of a man may have been irrevocably determined by the slight, but constant irritation which is kept up by a seemingly unimportant disorganization of some part, arising, perhaps, in childhood, from the ignorance of nurses or of parents. All physicians, ancient as well as modern, have said that the body of eve-

* The moral tendency of certain employments, as sketched in the annexed paragraph, will be interesting to some of our readers.

“ Common opinion attributes to butchers a cruel and sanguinary character; but an appeal to the registers of the police, the tribunals, and the prisons, will shew that fewer acts of violence are committed among these men, than among bakers, who are not believed to possess dispositions so cruel. By similar researches, I discovered that a seditious and turbulent spirit, belonged principally to masons, but especially to printers: that the lowest debauchery was practised by shoemakers; that pedrasty was the ~~crime~~ of boys at lemonade shops, of barbers, and waiters; that braziers were distinguished by avarice; that prudence, good order, and docility were met with commonly, among gold-beaters, basket-makers, and goldsmiths. The morality of artisans is commonly in proportion to the instruction they receive, to the quantum of their wages, and to the healthy nature of their occupation.”

ry person contains some weak or unsound part, and we believe it. It is the constant effect of this weakened part to impede the free actions of the constitution, and this leads slowly, but certainly, to death. Infants, however, are rarely born with these unsound organs. A predisposition to them, indeed, is often transmitted by hereditary descent, but an exciting cause is always necessary to bring this predisposition into action, and, if we could learn to bring up our children in perfect and robust health, we should teach them, not only how to brave most of the exciting causes of severe diseases, as savages do, but the deleterious influence of most professions in civilized life would be equally set at nought. Night-men would bear with impunity the occasional inhalation of noxious gases, and chimney-sweepers the contact of irritating dirt. It is, therefore, the previous state of unsound health, which gives effect to the majority of these causes of disease, and it is only to be regretted that the world is not yet sufficiently enlightened to see the cause of these evils, with sufficient clearness to prevent the consequences which arise from them, as frequently, as we have no doubt, will one day be accomplished.—*Med. Intel.*

IV. MATERIA MEDICA AND PHARMACY.

“ How few medicines preserve the good character which is given of them by their first promulgators ! We think that the reason of this is not sufficiently understood. It is not that the promulgator has any intention of deceiving the public, nor that he has, in the main, deceived himself : it is, that he has studied the properties of the medicine so closely, as to have acquired a knowledge of its action, which he in vain attempts to teach others. We say in vain, because they cannot learn it, unless they study it nearly as intensely as he himself has done. There are very few medical men who do not possess a favourite medicine, with which they can produce effects, which differ from the experience of their neighbours. One of our friends cures very many varieties of inflammatory action by means of colchicum ; another does nearly the same thing with ipecacuanha ; whilst perhaps the rest of the world can do it with neither the one nor the other ; but if they be attentive practitioners, they can accomplish it by other means, as by antimony or digitalis, &c.— Still, therefore, we return to the same precept, which it is one of our great objects to inculcate—that it is only by an unwearyed investigation of the minutiae of medical practice, which can lead to the formation of an accomplished practitioner. Good

general principles form the basis ; minute attention to all the phenomena of disease, and its treatment, can alone raise the superstructure."

Dr. COINDET on Iodine.

" A property of this substance, yet so imperfectly known, is to form an acid, when it combines either with oxygen or with hydrogen. The salts which result from its combination with oxygen being little soluble in water, I have not used ; I have preferred those obtained by its union with hydrogen, with which iodine has such an affinity, that it seizes it wherever it finds it, and forms with it an acid known by the name of *hydriodic acid*. It saturates all the bases, and forms neutral salts, amongst which I have chosen as a medicine the *hydriodate of potash*. I have used that of soda with equal success. The hydriodate of potash is a deliquescent salt, forty-eight grains of which in an ounce of distilled water represent about thirty-six grains of iodine. It is this preparation, in this dose, which I have most frequently used."

" In order to avoid all error in respect to the dose of the medicine in the following preparation, which I have termed *tincture of iodine*, I have employed forty-eight grains of iodine to one ounce of spirit of wine of 35°. I have used this preparation more than the preceding ones, (perhaps with superior success,) because it is easily prepared in the smallest towns, where there are not always chemists sufficiently experienced to obtain the saline hydriodates in a state of purity, and I have thought it right to make it the principal subject of my inquiries into the effects of a remedy which should come into general use.

" This tincture should not be prepared at once in very large quantities, because it cannot be kept long without a deposition of crystals of iodine taking place from it.

" I prescribe for adults ten drops of one of the three preparations, in half a tumbler of syrup of capillaire and water to be taken in the morning fasting ; a second dose at ten o'clock ; and a third in the evening, or when the patient is going to bed.

" Towards the end of the first week, I prescribe fifteen drops of it, instead of ten, three times a day. Some days later, when the iodine has had a sensible effect on the tumour, I increase the dose to twenty drops three times a day, to sustain the action of it. Twenty drops contain about a grain of the iodine. I have but rarely exceeded this dose : it has been sufficient to dissipate the most voluminous bronchoceles, when they were only an excessive developement of the thyroid *body*, without any other organic lesion."

"Iodine is a stimulant; it gives tone to the stomach, excites the appetite: it neither influences the stools nor urine, nor does it provoke sweating, but it exerts its action expressly on the generative system, and especially on the uterus. Administered in a certain dose, continued for some time, it is one of the most active emenagogues I know: it is, perhaps, by this sympathetic action that it cures bronchocele in a great proportion of cases.

"I have employed it with complete success in one of those cases of chlorosis for which I should have prescribed myrrh, preparations of iron, &c. if I had not suspected this peculiar action. This substance merits, in this new point of view, the attention of physicians; and I have no doubt but that it will become, in able hands, one of the most powerful of the remedies with which modern chemistry has enriched the *materia medica*."—*Med. Intelligencer.*

Dr. Ives on *Cornus Circinata*.

From an essay on the *cornus circinata*, or mountain willow, by Dr. Ives, we learn that this remedy is in common use at New-Haven, as an astringent and an aromatic tonic, and is used as a substitute for Peruvian bark. It seems that it was first introduced by Professor Ives, in consequence of its having been successfully employed as a nostrum upon a patient labouring under a protracted disease of the bowels. From its superior efficacy to other means employed, he was induced to offer a reward for a specimen of the plant. From that time, which was about twelve years ago, he had been in the constant habit of prescribing it in cases indicating the use of vegetable tonics, and with such satisfactory results, that, for a number of years past, he had used more of it than he had of the Peruvian bark. The author has prescribed it in dysentery, after the bowels had been evacuated, and the febrile symptoms subsided; in protracted cases of diarrhoea, and in dyspepsia, accompanied with an enfeebled state of the stomach and bowels, with general debility. In diseases of this character, it is unquestionably a valuable remedy, and equal, if not superior, to any other tonic. Prof. Ives, of New-Haven, speaks highly of its efficacy in cholera infantum. In the preparation of ink or of black dye, it is superior to oak, sumach or logwood, and but little inferior to that made with the Aleppo galls.—*Lond. Med. and Phys. Jour.*

On the Essence of the *Lauro-Cerasus*.

What preparation would be most proper to furnish the hydrocyanic acid for medicinal purposes?

In reply to this question, the physicians of Florence observe,

as the result of numerous and varied experiments, that the essence of the *prunus lauro-cerasus* is to be preferred in medical practice to all other preparations which contain the hydrocyanic acid: for, unlike the distilled water of the plant and the pure prussic acid, it contains the same proportion of this acid, and is of the same power, whether recently prepared or old; when made in one place or another; after exposure to the air, to light, or to heat. They think, also, that the oil of olives or of almonds is the most proper vehicle, in the proportion of an ounce to twelve drops of the essence, or in a smaller dose, when employed by friction externally.—*Lond. Med. Repos.*

On the acid preparations of Opium.

A medicine called *Black-drop*, has been for more than a century in use in Europe. It is prepared in various methods, but all essentially consist in the action of some vegetable acid, commonly impure acetic or citric, upon opium, with the addition of aromatics, and sometimes sugar or honey. This composition has been supposed to be adapted to cases, in which from idiosyncrasy, or some other cause, pure opium or its tincture produced disagreeable effects, and it has been alleged that it neither offends the stomach, nor produces headache, vertigo, nausea, etc. which are well known, under certain circumstances and management, to result from opium in its more common forms.

A preparation of the kind in question has been adopted into the *Pharmacopœia* of the United States, under the name of *acetum opii*, but the directions for its composition are so loose and indefinite, and the process itself is so liable to impair the power of all the essential ingredients, and make the compound of such variable and uncertain strength, as to render it, on the score of uniformity, safety, and probably as respects convenience of keeping, entirely unfit for use.

Dr. Porter of Bristol, in England, has recently, however, introduced to the public, a preparation, apparently combining all the advantages, without any of the disadvantages of the composition in question. His direction for its preparation is as follows:—

Take Best crude opium, four ounces.

Crystals of citric-acid, two ounces.

Grind well together in a Wedgewood mortar; add one pint of boiling distilled water; mix intimately; macerate twenty-four hours, and strain through filtering paper.

This compound he denominates *Liquor of the citrate of Mor-*

*phia,** upon the supposition, we suppose, that it consists essentially of citric acid and the alkaline morphia, a proximate principle of opium, which some have imagined to be simply anodyne and soporific, conjecturing that its intoxicating and nauseating properties reside in another principle called Narcotine. However this may be, Dr. Porter's preparation undoubtedly contains both, as the latter is very soluble in acids, and but sparingly so in alcohol.

The acid in this formula being concrete, is not liable to any variation in strength, and as neither boiling, fermentation, nor evaporation, constitute any part of the process, the strength of the ingredients, and the bulk of the compound must be nearly uniform. During the summer, however, a small quantity of air is liable to be extricated from it, and a pellicle of mould sometimes forms upon its surface, but without occasioning any perceptible change in the virtues of the liquor. Perhaps this slight inconvenience might be obviated by the addition from the first, of some aromatic.

The liquor of the citrate of morphia, has been used to a considerable extent by the conductors of this Journal, and it is believed, on the whole, with as much satisfaction as any other opiate. Its effect is usually considerably more speedy, and likewise more transient than opium in substance, or even its tincture. A dose by any means adequate to the exigency of the case, seldom fails of proving anodyne in ten minutes, and soporific, if the quantity taken is sufficient for this purpose, proportionally early. It is thought by some gentlemen, not to be quite equal to opium in substance or the tincture, for the purpose of restraining the frequency of intestinal discharges in dysentery; but, being less liable to be followed by certain secondary effects of opium, such as nausea, vertigo and headache, it may frequently be employed with advantage, where the latter cannot be used without great inconvenience. As relates to dose, one part of the liquor of the citrate of morphia has been said to be equivalent to three of the common tincture of opium, and this we are inclined to think is about correct, in cases which require but a small quantity; but for those cases in which large quantities are necessary, at least half as much will be required to produce the same effect. On the whole, we think this composition may be recommended to the medical faculty at large, as worthy of employment, since it affords a useful variety in pharmaceutic preparations, operates

* Dr. Porter writes, *Liquor Morphii Citratis*, an evident mistake for *Morphiaæ*; as this alkali is called *Morphia* invariably by the English, and *Morphine* by the French.

more speedily, and in a less dose, and is, in some instances, less offensive than opium in substance, or its tincture.

It must be remarked, that as caustic alkalies abstract acids from morphia, and render it much less active, the simultaneous use of water of ammonia, and perhaps lime water, are to be considered incompatible. Indeed, as there is always a predominance of acid in this preparation, a chemical action may be expected to take place, whenever it is accompanied by any of the alkaline or earthy carbonates.

We have only to add, that we have found the liquor of the tartrate of morphia, quite equal to that of the citrate in medicinal efficacy, and superior, on the score of economy and convenience. We have employed the same proportion of the crystallized tartaric, as of the citric acid, to the same quantity of opium. We hope at the next revision of our valuable National Pharmacopeia, that either the liquor of the tartrate, or citrate of morphia, will be substituted for the less convenient and less uniform acetum opii.—*Ed.*

MEDICAL LITERATURE OF THE
UNITED STATES.

New-England Journal of Medicine and Surgery, VOL. XII. NO. I.

THE New-England Journal embraces original communications, generally furnished by the physicians of the eastern states, Reviews of recent publications, and selections from foreign Journals. Our commentaries will extend only to the original department of this, and of the other cotemporary Journals published in the United States, it being our constant aim to transfer to our own pages what is particularly interesting in the periodical publications of Europe.

Art. I. *Case of the renewal of two teeth at a late period of life.* By T. W. PARSONS, M. D., Surgeon Dentist.

A lady, 50 years of age, called on Dr. Parsons, to have the fang of an old tooth extracted. Upon examination, the Dr. found, in the place of the right central incisor, a new tooth, very unlike its predecessor in shape, being of a blunt form on its cutting edge, and very prominent on its external surface. From appearances, it was inferred that another tooth was about to appear. Such is the outline of a case which occupies nearly four pages of the New-England Journal. It is less extraordinary than Dr. Parsons seems to think, and might, in our opinion, have been very easily condensed.

Art. II. *Fatal case of vomiting of a chyle-like Fluid.* By Dr. LAWRENCE SPRAGUE.

In this case, "the title to the contrary notwithstanding," there

was neither nausea nor vomiting. The patient was suddenly seized with severe pain in the abdomen, his pulse was imperceptible, skin cold, eyes ghastly, countenance pale, and a fluid resembling milk flowed incessantly from his mouth. Such were the symptoms when Dr. Sprague found the patient an hour after the attack. The only medicine administered was laudanum, which was probably not retained on the stomach, and in thirty minutes the patient died. The discharge from the mouth continued after his death, and by one who was present from the commencement of the attack, it was thought to equal a gallon. The patient repeatedly declared that he felt neither nausea nor the least inclination to vomit, and while the fluid continued to flow from his mouth, there was no effort, nor the slightest action of vomiting to be perceived. Our readers will recollect the experiments of Magendie, who has proved that the stomach is passive in vomiting, which is the effect of the combined action of the diaphragm on the one hand, and of the abdominal muscles on the other. In the above case, these muscles were passive, and the fluid appears to have been regurgitated through the agency of the stomach.

Art. III. *Morbid anatomy of the vascular system with red blood.*

This paper is extracted from a translation of Beclard's additions to the *Anatomie Generale* of Bichat. The enlargement of the arterial branches, constituting one variety of aneurism, and their contraction, which is more rare, and occurs in some cases of atrophy, paralysis, &c. are the subjects which are first investigated. The organization of the arterial system is also susceptible of morbid changes. Inflammation more frequently occurs in the interior membrane of the arteries than in their other coats. It is sometimes first developed in this membrane, and sometimes transmitted from other organs, and is characterised by redness and thickening of the membrane, and by albuminous effusion. It is sometimes followed by obliteration of the arterial tube. When the exterior coat of the arteries is inflamed, which, however, is a rare occurrence, the vessel becomes fragile. There is a state of the internal membrane mentioned by Bichat, which, from its red colour, simulates inflammation. It appears to be different from arteritis, and according to Franck, is frequently met with in one variety of fever.

On the subject of wounds of the arteries, Beclard has contributed but little to our knowledge beyond what may be gained from the observations of Home and Hodgson, and the experiments of Dr. Jones. For his observations respecting ossification and other morbid alterations, peculiar to the arterial texture, we must refer our readers to Dr. Hayward's translation, which we are happy to learn is in the press.

Art. IV. *Dr. Hazeltine on the Calomel Pill.*

In the *Pharmacopœia* of the United States, calomel and soap are united in the form of a pill. The editors of the *New-England Journal*, in reference to this subject, observed that the two ingredients are incompatible, and that when combined, according to the formula in

question, the calomel is decomposed. Dr. Hazeltine, having long been in the habit of employing a similar remedy, has undertaken to defend the national pharmacopœia, and this, we believe, is the origin of the communication in the last number of the Journal. The truth is, that notwithstanding the decomposition which takes place when the sub-muriate of mercury is combined with the alkaline carbonates, its efficacy is not destroyed, but a new remedy is formed, which in many cases is undoubtedly superior to calomel. It resembles the blue-pill, which is extensively employed in Europe, and we doubt not but those who have been in the habit of prescribing both, have noticed the similarity.

Art. V. Case of the successful use of cold affusion in an affection of the brain. By SAMUEL WEBBER, M. D.

A robust young man, having been exposed during the afternoon to the influence of the sun, was suddenly seized with delirium in the evening. When Dr. Webber was called, his face was flushed, his eyes wild and sparkling, skin hot and dry, pulse hard and full, and above one hundred in a minute. Sixteen ounces of blood being taken from his arm, he became more calm, but his fury soon returned. Four grains of tartarized antimony were given without effect; after which, three or four buckets of cold water were dashed on his head. The patient became more calm, was perfectly rational, and slept well the rest of the night.

REVIEW.

Art. VI. A dissertation on the treatment of Morbid Local Affections of Nerves. By JOSEPH SWAN, Member of the Royal College of Surgeons, &c.

This dissertation was honoured with the Jacksonian prize for 1820, and is considered to be valuable, without possessing any very strong claims to originality. The ~~dis~~ ^{functions} of the nerves of voluntary motion are divided into active and passive—one characterized by pain, the other by paralysis. In the latter, it sometimes happens that the sense of feeling is but slightly impaired, while the power of voluntary motion is completely lost, which is explained by Mr. Swan, "by supposing, that the muscles of voluntary motion require the nerves to be in the most perfect state, to enable them to act, and that a less degree of perfection is required, to enable them to perform the functions of feeling. This explanation the reviewer deems satisfactory, but we think the experiments of Bell and Magendie, who have demonstrated that the nerves of sensation have a distinct origin from those of voluntary motion, furnish a different and more satisfactory explanation of this phenomenon. In the treatment of tic douloureux, the author relies upon tonics and restoratives, particularly upon cinchona, the arsenical solution, cicuta, belladonna, and stramonium. We were surprised to find no encomiums upon the carbonate of iron, a remedy which has been extensively employed, and has been found more efficacious than any other.

**Art. VII. *A Treatise on Domestic Medicine*—By ROBERT THOMAS,
M. D. &c. &c., revised by DAVID HOSACK, M. D. &c.**

We spare ourselves the trouble of transcribing entire, this portentous title page, and give, as more in point, the following extract from a late English Journal:—

“Dr. Thomas is as well known to the indolent part of the Profession, as Mother Bunch’s *fairy tales* is to the lisping inmates of the nursery. Not unlike that more innocent production, the present is intended to operate, although in a much more serious manner, upon the imagination of those ‘children of larger growth,’ who may honour the author by the perusal of his work. The fact is, that Dr. Thomas commenced his literary career by publishing a ‘reading made easy’ book, to the junior members of the Profession, who were anxious of having both the time and trouble of becoming initiated as much abridged as possible. His views extended with his success, and his earlier work gradually lapsed into a manual for country curates, and for every body who had curiosity enough to desire its perusal, or were unfortunately seized with mental derangement of that nature which eagerly longed after that forbidden fruit,—the knowledge of the nature of their ailments, whether real or imagined. Still Dr. Thomas could not rest contented with his extended sphere of *usefulness*; and, to complete what the former was not calculated altogether to effect, he produces a work that promises to enlighten mankind, upon a subject the most interesting to all—the benefit of self.”

The reviewer has taken pains to prove that the volume is not calculated to answer any good purpose, and he expresses his surprize, that a distinguished professor should sanction by his authority a mere money speculation. “Books of Domestic Medicine, we are thankful, are not numbered among the classics of our fire sides, and we have therefore little personal concern in the question as to their value. We only feel upon this subject as members of a dignified profession, and regret that any legitimate member of it should have so far forgot its honour and interest, as to descend to manufacture or countenance such a book.”

Art. VIII. *Essays on Surgery and Midwifery, with practical observations and select cases.* By JAMES BARLOW, Surgeon.

This is a review of Mr. Barlow’s observations on Midwifery, or rather a selection from his interesting volume, occasionally interspersed with observations of the editors. In the latter we find nothing which requires commentary. The remainder of the number embraces a concise analytical sketch of recent English publications.